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ABSTRACT

Competencies are the focal concept in the world of education and training in Australia at this moment in 1993. This book is a collection of papers and has three purposes. First, it aims to provide basic information about education and training. Second, the book aims to explore something of what competency-based education and training looks like in 1993 below the stratosphere of national policy. The third aim of the book is to set out some of the issues which need to be debated by educators and the community. The first of five sections, "Policy Formation," contains three papers: "Workplace Imperatives for Education and Competence" (Laurie Carmichael); "Key Competencies--Uncovering the Bridge between General and Vocational" (Ann Borthwick); and "Reform of Australian Vocational Education and Training: A Competency-Based System" (Lorraine Wheeler). Section 2, "Key Competencies," contains three papers: "Linking Key Competencies and the National Curriculum Agenda," (Rob Randall); "Key Competencies and Schooling in South Australia" (Jim Dellit); and "Training Reform and Key Competencies" (Colin Ducker). Section 3, "Competency-Based Vocational Education and Training," contains two papers: "Queuing for TAFE not INXS: Vocational Education and Training in the Nineties" (Susan Holland); and "Competency-Based Training in TAFE: Rhetoric and Reality" (Bert Beevers). Section 4, "Defining Professional Work," contains three papers: "National Competency Standards for the Teaching Profession: A Chance to Define the Future of Schooling or a Re-affirmation of the Past?" (Sharan Burrow); "Competency-Based Standards in the Professions and Higher-Education: A Holistic Approach" (Barbara Preston and Jim Waller); and "Areas of Competence for Teachers--The NSW (New South Wales) Scene" (Christine Deer). Section 5, "Critique," contains three papers: "The Psychology of Competency-Based Education" (Gordon Stanley); "Competence: A Game of Smoke and Mirrors?" (Nancy Jackson); and "Is There a Need to Redress the Balance between Systems Goals and Lifeworld-Oriented Goals in Public Education in Australia?" (Victor Soucek). (Contains 292 references.) (RR)

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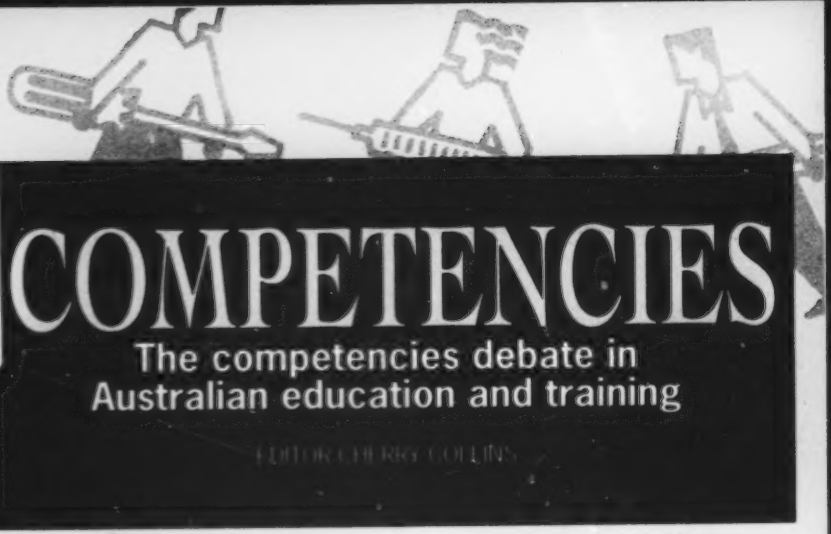

COMPETENCIES

The competencies debate in Australian education and training

EDITOR CHERRY COLLINS

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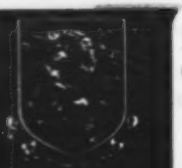

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COMPETENCIES

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Cherry Collins

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List of Acronyms

Are you CIAA?

If you want to engage with the debate on competencies you may first have to become CIAA (Competent In Acronym Analysis). Here is a list of common acronyms used in this text:

AEC	Australian Education Council
ACACA	Australian Curriculum and Assessment Certifying Agencies
ACTRAC	Australian Council for Training Curriculum
ACTU	Australian Council of Trade Unions
ANTA	Australian National Training Authority
ASF	Australian Standards Framework
AVC	Australian Vocational Certificate
CBE	Competency-Based Education
CBT	Competency-Based Training
CCI	Chamber of Commerce and Industry
CEDEFOP	European Centre for the Development of Vocational Training
COSTAC	Commonwealth/State Training Advisory Committee
CSB	Competency Standards Bodies
CURASS	Curriculum and Assessment Committee of AEC
DEET	Department of Employment, Education and Training
DEVET	Department of Employment, Vocational Education and Training
DOLAC	Department of Labour Advisory Committee
ESFC	Employment and Skills Formation Council
ESUs	Essential Skills and Understandings
FAUSA	Federated Australian University Staff Association
GATS	General Assessment Tasks
IETCs	Industry Employment Training Councils
ITABs	Industry Training Advisory Boards
MACTEQT	Ministerial Advisory Council on Teacher Education and the Quality of Teaching (NSW)
MOVEET	Ministers of Vocational Education, Employment and Training
MTFU	Metal Trades Federation Unions
MTIA	Metal Trades Industry Associations
NBEET	National Board of Employment, Education and Training
NCS	National Competency Standards
NCVQ	National Council for Vocational Qualifications (United Kingdom)
NFROT	National Framework for the Recognition of Training
NOOSR	National Office of Overseas Skills Recognition within DEET

NPQTL	National Project on the Quality of Teaching and Learning
NSWTEC	NSW Teacher Education Council
NTB	National Training Board
NTRA	National Training Reform Agenda
NVQ	National Vocational Qualification
QERC	Quality of Education Review Committee
SACE	South Australia Certificate of Education
SCANS	US Secretary for Labor's Commission for Achieving Necessary Skills
SCOTVEC	Scottish Vocational Education Council
SESDA	State Employment and Skills Development Authority
SSABSA	Senior Secondary Assessment Board of South Australia
SVQ	Scottish Vocational Qualification
TAFE	Technical and Further Education
TDC	Trade Development Council
TQAP	Teacher Qualification Advisory Panel
UACA	Union of Australian College Academics
VEETAC	Vocational Education, Employment and Training Advisory Committee

Introduction

Introduction

Cherry Collins

Competencies are the focal concept in the world of education and training in Australia at this moment in 1993. The competency-based approach has been part of the discourse of the training sector for a dozen years and remains a central pillar of the training agenda, linking directly to award restructuring through the National Training Board's Australian Standards Framework. In the 1990s, however, the competencies approach has spilled out of the training sector.

Because it is the discourse of industrial bargaining the Australian Standards Framework also has a grip on the professions. As a result, practising teachers, and their industrial organisations, now have an interest in trying to conceptualise their practice, and their standards of practice, in a competency-based way.

Further, the competencies approach is being strongly advocated as an educational strategy in post-compulsory education — defined by the OECD as affecting young people aged 16 to 19 years. The Ministers of Education across the country and their counterpart Ministers of Vocational Education and Training are in the process of considering whether to adopt a proposal to make certain employment-related key competencies a core aspect of the curriculum for all post-compulsory students in all States. Rippling out from this proposal, the idea of developing key competencies is being talked about in relation to the earlier high school years (see Dellit in this volume) and, in the other direction, as applying to the general liberal programs in universities.

School educators have participated in competencies discourses before. In the late 1960s, as a Harvard graduate student, I took part in a project looking at the development of competencies in young children. The concept of competencies in those days was dear to the hearts of behaviourist educational psychologists. This was because 'competent' is a descriptor, an adjective, which is assessed through overt behaviour. Competence is inferred from the visible, tangible world to which behaviourists cling. Performance is the package which is weighed in judgements about competence. The difficult educational questions about the causes of competent performance about how competence is built through the fostering of intellectual, social and personal development can be finessed in a way which behaviourists truly appreciate.

In early childhood education the competency approach made inroads beyond behaviourist territory. When dealing with children too young to take more formal psychological testing seriously or even to be verbally consistent, working backwards from the observation of natural behaviour (performance) to making inferences about how competence is developed made a lot of sense. Competency was thus being used in those days as a route to understanding early childhood development.

The question for us, in the 1990s, is whether this approach makes sense as a way of conceptualising what education and training is about, in whole or in part, for the entire adolescent to working adult age range. Competencies have come back to education along a circuitous route through industry and the training sector. The 1990s advocates are people with a particular concern for economic development and for the related fostering of what they call 'employment-related' competencies. Indeed, in other countries where competency-based approaches are being explored (the English-speaking world of Canada, the United States and Britain), the target group for competency-based learning policies remains the training sector. Australasians stand out in seeing this as an approach which is relevant across the education of the whole post-16 age group, including senior high school and university students.

The question of extending competency-based approaches beyond the training sector is not a trivial issue. The Australian Standards Framework is based upon behaviourist assumptions. Its implicit view of competence is a skills collection model. Each piece added to the collection can be learned through a sequence of steps so that one can have 'levels' of attainment of each particular competency. Such a view (bits and steps) makes some sense in relation to learning a set of concrete skills related to handling material objects. In occupations involving concrete skills and concrete products it is relatively easy to say whether this or that discrete job has been performed competently, and even to rate the degree of competence. Surgery and hairdressing are much easier to rate than psychiatry and childcare. A major issue for educators is whether, from such a starting point, we can invent a way of envisaging, and then defining competence, which is of value for more holistic, less material, more human relational, more open-ended human performance capabilities.

Both the Mayer Committee and the National Project on the Quality of Teaching and Learning (NPQTL) have attempted such envisaging and defining. Competencies are defined by the Mayer Committee as 'mindful, thoughtful capabilities' (Mayer 1992, 4). These capabilities involve skills and underlying knowledge. The Mayer Committee adds understanding as another ingredient: competence, says Mayer, 'goes beyond pure or abstracted thinking to the skilled application of understanding' (Mayer 1992, 5). The NPQTL working party on teacher competence adds attitudes to the definition: competencies, says NPQTL, are 'the attributes (knowledge, skills and attitudes) which enable an individual or group to perform a role or a set of tasks to an appropriate level or grade of quality achievement (ie an appropriate standard)' (see Burrow in this volume). These are seen holistically. Such definitional statements are

important. However, we need to ask whether, and how, they can make a difference at the operational level.

The vanguard which has led the competency-based movement into university territory in Australia has been NOOSR, the National Office for Overseas Skills Recognition, an office within the federal government's Department of Employment, Education and Training. As a country with a large intake of skilled immigrants we have long been troubled by the vexed issue of which qualifications awarded outside Australia should be recognised here. The problem has, of course, been exacerbated by the self-protective barriers of professional and skilled-trade organisations in Australia. Yet beyond self-protection is a genuine and important issue which requires consideration of the best interests of Australian clients, justice to individuals, and the effective deployment of an overseas-trained cohort. NOOSR has argued that a competency-based approach can solve this issue fairly and efficiently. Competencies can become the basis for the testing of prior learning and for decisions about recognition or non-recognition of qualifications. Professions are being challenged to list the competencies they regard as essential to good practice.

This approach is necessarily of interest to professional bodies because it fits snugly into the Australian Standards Framework. Competencies are one of the recognised pieces of terminology, the bargaining chips, in the discourse of the tripartite national industrial politics of employers, unions and government. Thus NOOSR has had powerful cards to play when approaching professional bodies.

However, the ramifications of a competency-based definition of professionalism extend well beyond NOOSR's brief. There is, for a start, an implied argument that if essential competencies can be listed by the professions, these should become the outcomes around which the Australian university programs of those professions should be designed. Rather than a bolt-on curriculum in which students must make the connections between specialised academic knowledges in packages of courses, professional educational programs should be directly aimed at the development of the competencies.

Another consequence of the push to list out necessary competencies is the opening up of the whole issue of RPL (recognition of prior learning) in all post-secondary institutions not just for recent arrivals but for all who have learned on-the-job or in non-recognised institutions. These possibilities have not been lost on those writing national policy reports over the past few years (see for example Finn 1991, 108; Carmichael 1992, 7).

While NOOSR, and the Australian Standards Framework which looms behind it, have been troubling the sleep of university deans and of teacher union leaders, a completely different initiative, the key competencies push, has been haunting everyone in high school, training and university sectors. The possibility of designating employment-oriented 'Areas of Competence', as essential elements in the post-compulsory curriculum, was introduced by the Australian Education Council sponsored *Review of Post-compulsory Education and Training* (Finn 1991). The listed 'Areas of

Competence' for employment were seen to be relevant to all in the post-compulsory age group 'regardless of the education and training pathway that they follow' (Finn 1991, xii).

Late in 1991, the idea of designating 'Areas of Competence' was handed on to a committee appointed specifically to explore the Finn proposal. This new committee, the Mayer Committee, features prominently in this volume. It put out a final report in September 1992 in which a set of 'Key Competencies', rather than 'Areas of Competence', was proposed. Key competencies are envisaged as generic strands of human capability which are orthogonal to all curriculum areas and subjects and weave through them (see Borthwick and others in this volume). They parallel what the British call 'core skills' and New Zealanders call 'essential skills'.

The Mayer Committee firmly stated that these employment-related key competencies were envisaged as simply another aspect of the post-compulsory curriculum, not as a take-over bid for the traditional purposes of upper secondary school or TAFE courses. Yet, as in the case of teacher professional competencies, the key competencies push is stronger and more all-encompassing than this piece of rhetoric acknowledges. In particular, it is related to an important aspiration that this may be a route to closing the longstanding, and unjustifiable, conceptual divide between the academic and the practical or between vocational and what the Finn Report labelled as 'general' education (see Holland in this volume).

Key competencies, such as 'solving problems', and 'expressing ideas and information', have been described by Mayer as simply setting out strands of capabilities which good educators already develop in young people. This is obviously true. But it is a partial truth which disguises two things.

First, from an educational perspective, the Mayer list of 'employment related' key competencies is a skewed list. There are other crucial competencies for which upper secondary schools, on the one hand, and TAFE, on the other, have often aimed. These notably include critical thinking and caring, competencies necessary for one's adult vocations of democratic citizen and community member (see Adler, for the Paideia Group, 1982). If we add as legitimate the aim of becoming as fully developed an adult human being as possible, then other competencies, for example, aesthetic sensibility (perfectly ratable through cross-curriculum performances), foreign language skills, and even physical dexterity, should be added. Some of these could be thought of as essential employment-related competencies if one moved beyond an 'Aussie-managerial' way of envisaging such things — but that is another argument entirely. The main point is that just as training-oriented beginnings have fixed certain biases into the construct of competencies embedded in the Australian Standards Framework, so the employment-oriented brief of the Mayer Committee's key competencies runs the danger of embedding a certain bias into classroom fostered competencies as envisaged for post-compulsory education.

In addition, the key competencies push is being conceptualised nationally, not

primarily as a program of professional development for teachers of post-16-year-olds, but as a program of test-development and of data collection on post-compulsory students. The old behaviorist finesse is still there. The advocates of a key competencies approach have seen their job as simply to specify the performance outcomes. How the capabilities for such outcomes can be developed — the *educational* problem — is not, apparently, their department. Further, the eagerness with which both Finn and Mayer launched into questions of graded levels, testing and performance monitoring, and their apparent blindness to the educational issues, raises serious questions about the point of the whole exercise. Is it truly to improve post-compulsory education or is it to harness and control it?

Thus the competency debate represents an important political moment for educators in Australia. They need to understand the competencies issue and to develop considered views on whether, and if so in which respects, to accept a competency-based approach on a number of fronts in education and training. At the policy level, the question of whether or not to press on with the key competencies initiative will be decided by the meetings of Education and Training Ministers in July 1993. It is a major decision. If accepted, key competencies testing will become part of the experience, and the grading, of all post-compulsory-aged students. Key competencies also play a central role in the Australian Vocational Certificate (AVC) training system put forward in the Carmichael Report. All AVC trainees will be required to 'achieve standards in the key competencies' (Carmichael 1992, 4). The decision therefore affects upper secondary schools, TAFE and private trainers. Similarly, the question of whether to accept a competencies approach to develop national teaching standards is a crucial debate across the States in 1993.

We can identify three major fronts to the competencies movement in Australia: competencies in the reconstruction of vocational education and training, the key competencies agenda, and the issue of a competency-based approach in the professions to the definition of standards and, consequently, to education in professional faculties. The first of these has been around for a longer time, but is no less strong — and no less debatable — for that. The other two are at the peak of their surge forward. As professional educators, we need to develop a considered stance in relation to them all.

* * *

This book has three purposes. First, it aims to provide basic information about national initiatives in competency-based education and training. Spokespersons for those initiatives present papers which outline what has been happening and why. Second, the book aims to explore something of what competency-based education and training looks like in 1993 below the stratosphere of national policy. Thus there are some papers from educators involved at the level of State initiatives or at the teaching-learning interface. The third aim of the book is to set out some of the issues which need to be debated by educators, and indeed by the community generally, before we push

ahead with competency-based education and training across the board. These issues include whether, and in what areas, a competency-based approach is realistic; who benefits from a competency-based approach; and whether such an approach is in the best interests of a future Australia.

There are five sections. The first of these contains papers by spokespersons directly in touch with the central national initiatives in competency-based education and training. Laurie Carmichael's paper sets out the national vision, the context into which he sees the competency-based education and training initiatives fitting. From the early 1980s, and particularly since the publication of *Australia Reconstructed* (1987), Laurie Carmichael has had a sense of urgency about the restructuring of Australia's economic base and industrial relations. Competency-based education and training is seen as the contribution the education and training sectors can make to that process. It is part of the effort required to improve Australian industry and to keep it competitive on the international market.

Anne Borthwick was the secretary to the Mayer Committee. In her paper she writes definitively about the development of the key competencies proposal. She shows us something about the practical process of consultation as well as some of the more private deliberations of the Committee. Thus we see some of the dilemmas debated by the Committee, and the attempts to find coherent ways through those dilemmas.

Lorraine Wheeler of the National Training Board (NTB) provides a comprehensive overview of Australia's competency-based training system. The competency movement, in its 1980s rebirth, started in the training area, and it is here that it is firmly established. The Wheeler paper sets out the bodies involved and their policy briefs. She gives the outsider a sense of how an enormous, national, competency-based training scheme is supposed to work.

The second section focuses on key competencies. Rob Randall, a member of the AEC's Curriculum and Assessment subcommittee (CURASS) is taking part in discussions about the interface between the key competencies program, as envisaged for post-compulsory schooling, and another huge AEC initiative, the writing of national curriculum statements and profiles across the entire school curriculum (commonly called the National Curriculum Project). In this paper, he explores some of the dilemmas created by a certain lack of fit between the two initiatives. One example is the incompatibility between the ways in which learning and development are envisaged by the Mayer Committee on the one hand, and by CURASS on the other. The national profiles are based on a conceptualisation of a developmental continuum. Further, development is seen as area specific, that is, as tied to the knowledge base of the particular curriculum area. The Mayer Committee, for all its care to move beyond behaviorism in its definition of competence, stayed mired in behaviorist fundamentalism in its envisaging of the monitoring of levels of competence: its report assumes a stepped progression of prespecified outcomes, seen as cross-curricular and as checkable (yes/no) from simple performance. One potential solution which avoids confrontation is

to let the national profiling exercise fade out at the post-compulsory level. This defines the problem out of existence by addressing the two initiatives to different client groups.

Colin Ducker's paper asks a parallel interface question about the relationship between the proposed key competencies program and the separate competency-based training effort already in place in TAFE and industry. Here there appear to be no major difficulties. Indeed the Ducker paper argues that key competencies have the potential to improve vocational training at the lower end of the Australian Standards Framework, the end that affects the 16 to 19 age group. Key competencies add a broader conceptualisation of competency to the current rather narrow occupational and industry-specific skills way of thinking about the matter. They may help TAFE and industry to reassess what it means to be competent in ways which add to the educational dimension of the training agenda.

Jim Dellit's brief was to tell us something about the implications of the key competencies initiative at State and classroom levels in a school system. Another competency enthusiast, Dellit gives us a sense of the complications which South Australia is trying to unravel now that trialling national key competencies has moved in across State-based attempts to make major changes to upper secondary schooling. The South Australian Certificate of Education reforms are in midstream. Just to maximise the confusion, SACE includes its own list of essential competencies which don't exactly coincide with the new lot from Mayer. The Dellit paper also gives us some sense of why, nonetheless, he sees a competency-based approach as good teaching practice and supplies some useful, specific, classroom examples.

Section three focuses on competencies in the vocational education and training sector. This sector has been making strenuous efforts to move from a time-in-training system to a demonstration-of-competence system. The section offers two contrasting views in their evaluation of the competency-based approach. Susan Holland, director of a New South Wales TAFE college, looks into the future and is optimistic about the potential of working with competencies. She wants to see all post-compulsory courses designed so that they are specific about three dimensions: their theoretical aspects, their practical aspects, and their generic competency aspects. Under such a scheme, the invidious distinctions between types of institutions would fade and cross-enrolment could become commonplace.

Bert Beevers, by contrast, assesses the past decade or so as someone who has had a longstanding association with TAFE. He writes about competency-based training, not as a policy 'visioner', but from the perspective of what is actually happening in the TAFE classroom and workshop. His verdict on competency-based training is that it has cost a great deal; it has diverted funds from other important TAFE work; it has killed the old worker education agenda of TAFE; and it has not even begun to succeed even in its own terms. This is a paper which deserves thoughtful attention. It is a voice rarely heard, from the inside of TAFE.

The fourth section looks at the issue of whether the competency-based approach

should be taken on board by the professions. While the Burrow and Deer papers focus particularly on initiatives to do with the teaching profession, the Preston and Walker paper looks more generally at the issue in relation to all professions.

Sharan Burrow, a representative of the Australian Teachers Union on the NPQTL, is a very strong advocate of the introduction of national competency standards for the teaching profession. Such standards could underpin the mutual recognition of teachers across State borders, reform teacher education in important ways, and become a means for judging the initial competence of teachers before and after their induction period. Sharan's arguments in favour of a competency-based approach include the establishment of an approach that distinguishes itself from, on the one hand, a Taylorist, skilled worker model and, on the other, from an academic knowledge-based model.

Christine Deer, a teacher educator, looks at parallel policy moves in New South Wales initiated by the NSW Minister for Education and Youth Affairs, Virginia Chadwick. A working party of teachers, teacher educators, and others drew up a competency framework for the beginning teacher in that State. There has been similar work done in South Australia. Deer argues that New South Wales has managed to avoid a simple checklist approach. She sees value in a competency-based model as long as teacher competencies are recognised as complex, interactive and holistic.

Barbara Preston and Jim Walker have been associated with both the NPQTL and the New South Wales initiatives. Their's is a thoughtful paper which serves two purposes. It introduces the whole issue of competency-based education for the professions as it has manifested itself in Australia. And it attempts to move the conceptualising of competencies beyond its behaviorist origins, arguing that if we can do this successfully the reductionist dangers of the approach can be avoided. A more holistic, Deweyan approach to competencies would be a valuable, outcomes-oriented tool for professional education.

The final section contains three critiques. The first of these, by Gordon Stanley, of the Western Australian Office of Higher Education, looks at psychological research, particularly on human cognition, and applies it to the competencies debate. He is particularly sceptical about the idea of cross-curricular competencies, the assumption on which the key competencies agenda is based. There is extensive research evidence that human capabilities are domain specific. For example, problem solving capability in mathematics is entirely unrelated to problem solving capability in the inter-personal domain. 'Problem solving' thus cannot be defined, by committee fiat, as a single, cross-curricular competency. Further, he argues, the more expert one is, the more one's capabilities are integrated into the domain's knowledge base and the less one's competencies are transferrable. Gordon is also sceptical about the possibility of reliably assessing competence from performances, as proposed in all initiatives. He concludes that there is 'no substitute for the building up of knowledge bases in specific domains'.

Nancy Jackson, a Canadian academic and industry consultant, makes the point that the main beneficiaries of a competency-based approach are education system managers.

She argues that there is no evidence that students learn better from a competency-based system, and there is no overwhelming push from industry for a competency-based approach — indeed there is considerable international evidence of industry suspicion of this as yet another educational fad. What competency-based education offers, she argues, is control through a 'warrantable set of procedures' which then protects the institution through providing a form of procedural accountability. Nancy is concerned about a 'profound and fundamental shift in where and how and in whose interests [educational] institutions are controlled and managed'.

Victor Soucek's paper is a challenging one written from a European intellectual tradition and within the discourse of critical theory. He argues that competency-based education, in its current manifestation, is a means of giving priority to the needs of the economy over educational priorities. And he contends that this is nowhere near good enough. Post-compulsory education needs to nurture our capacities to think, decide and act in ways which extend well beyond those required for employment purposes. Soucek is particularly concerned with developing the capacities of citizens to control the destiny of their own society, not just with developing their capacities to participate in work situations structured by others. The Soucek paper argues that educational strategies which are built around employment-focused competencies cannot do this.

* * *

This collection gives no answer to the question of whether Australia should proceed down the path of competency-based education and training. Every shade of opinion is represented here: the enthusiastic commitment of the campaigner; the 'no choice' acceptance of the bureaucrat; the 'we can subvert this and get it to work educationally' argument of the educational policy adviser; the cries of pain from those seeing good education being replaced by jargonistic ritual; the exploration of research which suggests that at least part of the competencies agenda cannot work; and the arguments that the whole current discourse is dangerous because it shifts the balance of power in the wrong direction and threatens crucial educational purposes in a democratic society.

Unfortunately there is no clear way through this thicket of opinion. It is not a cowboys an indians movie: there are no obvious goodies and baddies in the debate. Yet while there is no obvious way through this cacophony of voices, an Introduction can at least clarify some of the questions which must be asked.

One obvious question asks about aims and priorities. We need to ask, from where we sit, what we believe the urgent priorities of post-compulsory education, of teacher education, and of vocational education and training, ought to be. We then need to ask whether these can be addressed through the competencies agenda, or whether they need different programs. Are competencies distracting from other, more important educational (or indeed economic recovery) problems we should be addressing?

A related question asks about resources. The competencies agenda has taken considerable expenditure, time, and energy in all systems at all levels. In a tight resource

situation, will it give value, or would resources be better spent elsewhere — on teacher inservicing, on updating courses in TAFE and schools, on student counselling, on more and better post-compulsory educational sites?

A third question, or set of questions, asks about feasibility. One kind of feasibility which we in Australia are good at addressing is political feasibility. This asks about carrots and sticks, and about numbers of votes. Who is going to stand where on what? But there is at least one other kind of feasibility question: the question of whether the demands of policy makers are actually workable on the ground. If these papers are any guide, this is a question of relevance to the vocational education and training sector as well as to the schooling and university sectors.

A fourth question concerns the potential of a competency-based approach to shift the balance of power towards central decision makers and further from the professional interface of teacher and student. Is it, as Nancy Jackson argues, attractive to the corporate managers of the education and training sectors for reasons which have little to do with effecting real change for the better in classrooms?

Finally, much of the competencies agenda is openly embedded in an economic vision which sees a need to harness our educational institutions to economic ends. No educator would want to deny that education and training contributed to the economy, but it is important to debate what the proper relationships between the various institutions of education and the economy ought to be. How do we take seriously both the need for a strong economy and the need for a broader-than-vocationalism view of education in a liberal democracy? Is the competencies agenda a way forward or is it dangerously flawed?

Many other liberal democracies, notably in continental Europe, are ignoring the competencies fuss. The rest of the English-speaking world takes the concept seriously largely in relation to their training agendas. Australasia is the one place where the discourse of competencies is being used as an orienting device for general educational change. Are we blind to some important educational concerns which others consider to be crucial and, if so, what? Or will our competencies agenda put us ahead of everyone else? Along what paths? This book is designed to help educators to weigh these questions.

References

Adler, M J (on behalf of the Paideia Group) (1982) *The Paideia Proposal: An Educational Manifesto*. Macmillan, New York.

Carmichael, L (Chair) (1992) *Australian Vocational Certificate Training System*. Report of the Employment and Skills Formation Council, National Board of Employment Education and Training. AGPS, Canberra.

Finn, B (Chair) (1991) *Young People's Participation in Post-Compulsory Education and Training*. Report of the Australian Education Council Review Committee. AGPS, Canberra.

The Mayer Committee (1992) *Putting General Education to Work: The Key Competencies Report*. The Australian Education Council and the Ministers for Vocational Education, Employment and Training, Melbourne.

Policy Formation

Workplace Imperatives for Education and Competence

Laurie Carmichael

Most educationalists have striven hard for more than a century to achieve increased and broader levels of education throughout the community. In that time there have been significant incremental developments built upon the introduction of the concept of competency some 100 years ago. However, an enormous surge of development has occurred over the past decade. This has been partly propelled by rising educational participation rates, especially in Years 11 and 12. Longer school participation is now spilling over into growing demands for more vocational and higher education.

This recent surge is exerting inexorable pressures for change in education in a multitude of directions and in order that the nature of these changes can be grasped it is necessary to go to the imperatives that are fundamentally at work. There are four such imperatives.

Firstly, there is the computer-based technological revolution which is eliminating a large number of the repetitious and laborious jobs that were available in many industries for those who, for various reasons, left school at an early age. These jobs have gone forever; and the jobs created with the use of the new technology require significantly higher and broader levels of education and skills formation. The community at large and young people in particular are increasingly aware, and have an instinctive grasp of this imperative and are making demands accordingly.

Modern communication and information processing technology has greatly increased the dissemination of knowledge and increased our understanding of events occurring world wide. Such technology has provided another medium which, when effectively applied and utilised in conjunction with other modes of teaching, can create a greater productivity of learning.

The second imperative is the emergence of markets for high quality products and services that are globally competitive. It is these markets which are incessantly driving the need to work 'smarter' (and smarter still) and driving the need for education and skills to move forward constantly to gain and maintain competitive advantage. This in turn brings about a growing convergence of work and learning where it is increasingly

difficult to distinguish one from the other. 'Front end' learning no longer suffices. Lifelong learning becomes essential. Early learning, and the way we are taught how to learn, has to provide the basis for lifelong learning.

Increasing awareness, understanding, and legal accountability about the environmental and social effects of industry demand that all enterprises must take greater corporate responsibility for the level of knowledge, understanding and commitment of all employees for the outcomes and effects of their efforts. This provides the third imperative for change.

Finally we have the emergence of work groups and teams as the most effective way of managing the new systems technology. It is only through such teams that we can be constantly working smarter and be accountable for outcomes. In this respect, as shown by Katzenbach and Smith in their work *The Wisdom of Teams*, there is an important distinction to be made between work groups and work teams (and a further distinction with pseudo teams).

The emergence of 'work group software' is a further new force extending the technology, bringing an added factor into the market. Through local area networking such software provides work groups and work teams with interactive participation, greater rigour and accountability for performance from a myriad of directions.

None of this is to suggest that the only purposes of education are work related. However, the work related imperatives do exert powerful and inescapable forces for learning that must be fully taken into account. They expand the necessity to learn. They open up areas of relevance for learning including the humanities and they extend the means to learn way beyond the necessities, relevances and means of even the very recent past.

Converging General and Vocational Education

Past work station positions and operatives, administered by supervision in all fields of industry, are being replaced by work groups or teams where everyone is involved to some extent in managing the automated and interactive nature of computerised technology. They have to have the ability to work together, communicate ideas and information, solve problems, be innovative, exercise total quality control, and be accountable for outcomes. This is the fundamental substance of real workplace and management reform and the achievement of real productivity growth as distinct from the pretentions associated with simply cost cutting.

The essence is participation and involvement. Participants in work teams are required to know and understand the imperatives, the opportunities and the constraints. They need to be involved in setting the objectives of their work and operating to agreed performance indicators. Objectives have to be achievable on the one hand and, on the other, genuinely extend the teams results both quantitatively and qualitatively.

Work groups have invaded all sectors and segments of industry and, in many respects, without people being aware of them. They take a wide variety of forms. They

can extend from short life ad hoc to long term permanent. They can adopt varying but increasing levels of maturity and sophistication from the unconscious and naive to the very deliberate and rigorously organised. They can encompass diverse patterns and streams of skill and levels of skill formation. To effectively participate in work teams, however, each individual needs to contribute their own particular growing expertise. Additionally they have to have working knowledge and understanding of other requirements: they are called upon to own the objectives they pursue as a team; they are required to develop genuine responsibility for each other's performance; they need to follow rigorously the performance indicators they have to meet as a team; they are required to evaluate the outcomes of their work and constantly to work smarter as a team.

It becomes increasingly difficult to distinguish between what is general and what is vocational education for modern employment purposes in the modern mature labour market.

Narrowly focused and rigidly demarked skills, along with the need for administrative supervision, are of a past that is receding. Enterprises in industry that have not yet recognised the need will be driven to it by competition or languish if they do not. Industries such as sections of Retail that remain work station, labor intensive, will for the most part (certainly not exclusively) be seen only as a staging (immature labour market) transition for the individual on the way to participation in the more mature, high value added (and therefore more remunerative) labor market elsewhere.

On the one hand, in today's conditions the opportunity to get by with low and fixed levels of education and skills formation is disappearing, and, on the other, the necessity for increased and constantly rising levels of education and skills formation is being incessantly asserted.

The make up of work groups and work teams depends upon the range of skills required, the different levels required across the range, and how to fill the gaps. To put the same thing in other terms, the work groups and work teams are put together according to what 'competencies are required and at what levels'.

Three categories of education and skills formation are required:

- Broad based vocational skills
- Social work group skills or work team skills
- Self-management and accountability skills.

These only exist in an integrated contextual practice, but the essential competencies involved have to be cultivated and assessed as both employers and employee participants need to be able to identify their potential for the range of purposes that have to be met.

This need of industry extends way beyond the limited results of education and training of only a decade ago. Then about one third of young people would participate to Year 12 and less than one third of that number achieved tertiary qualifications.

These industry needs were considered by the Finn Committee whose report proposed that they would need further working out in detail. This further work was performed and reported upon by the Mayer Committee. The Mayer Committee endorsed

the objective to achieve consistency of national school outcome reporting at three levels of competency on seven key competencies. The seven key competencies adopted are set out in Figure 1, page 23. Essentially these represent a new minimum outcome for schooling.

This was supplemented in the Employment and Skills Formation Council Report (Carmichael Report 1992) with vocational certificate levels for industry that equate to the National Training Board's (NTB) Australian Standards Framework (ASF) levels 1 to 3. The Employment and Skills Formation Council (ESFC) in its recommendation of a new Australian Vocational Certificate (AVC) training system proposed the following targets:

- By 2001, 90 per cent of 19 years-olds are expected to have finished Year 12, or have finished an initial post-school qualification, or be doing formally recognised education and training.
- By 2001, 90 per cent of 20-year-olds are expected to have an AVC level 2, or be proceeding to a higher level.
- By 2001, 60 per cent of 22-years-olds are expected to have an AVC level 3, or higher, or be proceeding to a higher qualification.

Competency and Standards

Some opposition to competency standards has arisen and it is asserted that this new minimum schooling standard will degrade the purposes of education through to Year 12. Nothing could be further from the truth. Previous minimum standards at much lower levels did not have such an effect and the proposed new higher minimum should not either.

The only prescription that is made about the subjects to be learnt, from which the assessment of the seven competencies is derived, is that the ESFC argues the need for a diversity of contexts rather than the single, theoretical and academic context of the past. This is to establish relevance of learning for a 90 to 95 per cent participation as against the minority participation of the past.

It is this matter of relevance of learning that establishes the most effective starting point in moving from a minority of Australians with quality educational outcomes to a large majority. The way that learning is offered is also a factor. Group or team assignments, tutorials and accountability become greater factors in pedagogy. This, in turn, has effects upon school organisation and management.

Furthermore, we are moving to a situation where it will be the standard of competence achieved that establishes how effectively career paths can be pursued. Standards of competence are also crucial to social progress.

It is not for nothing that every, without exception, industry party making submissions to the Finn Committee insisted upon competency-based outcomes as the means of raising the level of Australian industry's human resources. Both industry executives and employees need to know and be able to demonstrate their competence to meet the requirements of the enterprise for the range of competencies involved and the various

levels across the range. Standards are required that clearly define the level achieved or being achieved without being overprescriptive and detailed.

It is the demonstrable capacity, and striving to meet the standard at the levels required, that constitutes a growing pursuit of excellence in both working and learning. Over time, as the pursuit and experience of constantly working smarter asserts itself, it must be expected that, in addition to the need for more people at higher levels of competence, the level of each standard must also rise. It is essential to proceed from establishing relevance for learning in modern terms to striving to reach rising quality standards of performance. It is also essential that a nation knows how it is faring in this process.

The process is certainly not exclusive to Australia. Under sustained impact of media comparison of industry performance in Britain, *vis-a-vis* Germany, the Confederation of British Industry in 1989 published a Vocational Education and training task force report entitled *Towards a Skill Revolution*.

The targets set by the Confederation of British Industry for vocational education in Britain are:

- immediate moves to ensure that by 1995 almost all young people attain National Vocational Qualification (NVQ) level 2 or its academic equivalent
- all young people should be given an entitlement to structured training, work experience or education leading to NVQ Level 3 or its academic equivalent
- by the year 2000 half of the age group should attain NVQ Level 3 or its academic equivalent
- all education and training provision should be structured and designed to develop self-reliance, flexibility and broad competence as well as specific skills

On the setting of standards the confederation argued that: 'in fulfilling its aims NCVQ needs to make consistent progress in promoting broad based competence'.

- NCVQ should press ahead with the development of 'generic' competences to broaden NVQs and to contribute to a national consensus on Common Learning Outcomes.
- Higher priority should be given to establishing a critical mass of fully accredited qualifications.
- More strenuous efforts at marketing and raising the status of NVQs are required.

With the European Economic Community (EEC) becoming a common market as of this year, progress is to be made toward common competency standards throughout Europe.

Standards and Excellence

Opponents to competency standards in Australia counterpose their own pursuit of excellence. They certainly do themselves less than justice. Such counterposing is counter-productive. The pursuit of excellence whilst meeting rising competency standards is and should be a complementary and inter-active process. Separating and counterposing two vital objectives creates impediments to progress.

Setting target standards of competence; striving to meet and exceed them; exploring advantages in proceeding to higher levels for some or all persons in a work team mix of competencies, and raising the level of each standard over time as the pursuit of quality creates a new culture, is at one and the same time participating in the genuine pursuit of excellence.

The potential exists for a massive increase in productivity and a widening of social perspectives. A large number of people become freed from repetitious and laborious work. They can be involved in managing and coordinating the new technology and social processes for an enormous range of purposes.

This potential can only be realised as sustainable structural adjustment extensively takes place and as education and skills formation increases commensurate with the structural adjustment. People in education asserting a singular theoretical and academic approach to learning are trying to enforce their own relevance on others which can only limit results. There are many pathways relevant to a love of learning and it is an imperative today to provide the means and connections appropriate to each individual.

As work is substantially freed of repetitious and laborious drudgery; as work and continuous learning increasingly converge in the pursuit of quality, innovation, and creativity; as higher educational levels of entry into work are required; and as social skills and self management increasingly bring a convergence of general and vocational education — then work over time will become more and more professional and the gap between the humanities and instrumentalist pursuits become less and less.

And even those who cherish their educated, privileged positions of today will find their life is enriched as a consequence. They might even enjoy it.

* * *

Key Competencies — Uncovering the Bridge Between General and Vocational

Ann Borthwick

The most influential element in the recent so-called competency movement on Australian schools has been the work of the Mayer Committee on key competencies.

As anyone who works around schools knows all too well the post-compulsory years have demanded the lion's share of attention in the school sector in recent years. All around the country schools and school systems are attempting to grapple with the dramatic growth in participation in Years 11 and 12 and with the changes of expectation of the purposes of this phase of schooling that have accompanied that growth. Three national reports have sought to explain the context and provide direction for these changes: Finn, Carmichael and Mayer — 'the trifecta' as they are known around the traps.

First came the Finn Report (AEC 1991) which set targets for participation and achievement of 16-19 year olds and, among other things, recommended the development of 'employment-related key competencies' — competencies essential for all young people to achieve in their preparation for employment, regardless of the education or training pathway they follow in the post-compulsory years.

Next published was the Carmichael Report (Carmichael 1992) which proposed a new system of entry-level training in Australia and showed how the key competencies could form a bridge between general education and vocational education and training as the core component of the proposed Australian Vocational Certificate. Finally, the Mayer Committee's report (AEC/MOVEET 1992a) proposed what these key competencies would actually look like.

The Mayer Committee consisted of 28 people, nominees of the State and Territory school and training systems, the Commonwealth, the National Catholic Education Commission, the Business Council of Australia, the Australian Council of Trade Unions, the Australian Vice-Chancellors Committee, the Australian Teachers Union, the Independent Teachers Federation of Australia, the National Training Board and the

Finn Committee. It acquired its name from its Chair, Eric Mayer, former Chief Executive of the National Mutual Life Company and Chair of the Business/Higher Education Round Table. The Committee was charged with the tasks of further developing the key competencies concept proposed in the Finn Report and of reporting its findings to the Australian Education Council (AEC) and to the Ministers of Vocational Education, Employment and Training (MOVEET).

The establishment of the Mayer Committee marked the first attempt in Australia to tackle an issue on both a national and an intersectoral basis. The size and scope of Committee membership indicates the range of parties with a direct interest in post-compulsory education and training whose participation and cooperation is required to take a step of this sort. And, although Committee members can attest to the scarcity of rooms that can accommodate 28 people plus support staff around a single table, it could be argued that there were more who warranted a seat. Early in the piece the Committee identified some 20 national organisations for special attention in the processes adopted for consultation.

The Committee's report was the culmination of a year of intensive work including two stages of consultation, based on discussion papers which outlined the Committee's thinking as it went along (Mayer Committee 1992a and b), and which provided opportunities to progressively test and refine proposals with the school and training sectors and the broader community. In the case of the second discussion paper (Mayer Committee 1992b), 25,000 copies were distributed nationally for comment and discussion. Each consultation stage was supported by presentations and seminars. In addition to the responses collected on these occasions, the Committee received more than 500 written submissions.

The Committee's report proposed adoption of a set of seven key competencies essential for all young Australians (see Figure 1).

The list formed part of a package of recommendations on the implications of the key competencies for curriculum, assessment and reporting in school and training programs and the steps required for implementation of a nationally consistent approach to reporting achievement of the key competencies.

The Idea of Key Competencies

This discussion focuses specifically on development of the set of key competencies itself. It is largerly an account of the content of discussion in the Mayer Committee. For the main part it also focuses on perceptions of development of the key competencies from the point of view of the school sector.

The term 'key competencies' was used in the terms of reference for the Finn Committee. They were asked to consider appropriate national curriculum principles designed to enable all young people to develop key competencies. While use of the word 'competencies' was in all likelihood linked to the development of a competency-based system as a cornerstone of the national reform agenda in vocational education and

Figure 1

Key Competencies
for effective participation in emerging forms of work and work organisation

Collecting, Analysing and Organising Information
The capacity to locate information, sift and sort information in order to select what is required and present it in a useful way, and evaluate both the information itself and the sources and methods used to obtain it.

Communicating Ideas and Information
The capacity to communicate effectively with others using the range of spoken, written, graphic and other non-verbal means of expression.

Planning and Organising Information
The capacity to plan and organise one's own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance.

Working With Others and in Teams
The capacity to interact effectively with other people on a one-to-one basis and in groups, including understanding and responding to the needs of a client and working effectively as a member of a team to achieve a shared goal.

Using Mathematical Ideas and Techniques
The capacity to use mathematical ideas, such as number and space, and techniques, such as estimation and approximation, for practical purposes.

Solving Problems
The capacity to apply problem-solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident and in situations requiring critical thinking and a creative approach to achieve an outcome.

Using Technology
The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.

(AEC/MOVEET 1992a, 3)

training, it is interesting to note that the Quality Education Review Committee (QERC) Report (Karmel 1985) also devoted some space to the notion of competence:

> The Committee has approached the definition of desirable outcomes through the concept of competence, that is, the ability to use knowledge and skills effectively to achieve a purpose. This allows the emphasis to be placed on the results of learning, which should be purposeful and have demonstrable effects. It encourages a practical examination of desirable outcomes because it can be used

> to concentrate attention both on the purposes to be achieved and on the necessary knowledge and the abilities required to apply that knowledge (Karmel 1985, 70).

The QERC Report went on to set out five 'general competences' it described as desirable learning outcomes for all students:

- Acquiring information
- Conveying information
- Applying logical processes
- Practical tasks
- Group tasks

The similarity between this list and the list of key competencies that the Mayer Committee finally settled on should not go unremarked — but more on that later.

While the QERC Report was focused on school education, the Finn Committee's interest was on the growing convergence between general education and vocational education and training in the post-compulsory years and the implications of this development for improving the connections between the two. It also emphasised the need to focus on outcomes, arguing that increased participation in post-compulsory education and training would be of little value to the individuals concerned, or the nation as a whole, unless it is were matched by improvements in outcomes. This in turn raised the question of establishing some means of describing desirable outcomes and of monitoring improvement.

In its discussion of outcomes the Finn Committee focused on the connections between education, training and employment. It came to the conclusion that there are 'certain essential things that all young people need to learn in their preparation for employment' and that they should be able to develop these 'employment-related key competencies' regardless of the education and training pathway they follow in the post-compulsory years. To facilitate this the Finn Committee recommended the development of a 'standards framework' with a 'profile' for each key competency to describe clearly the nature of each competency at a range of levels. Such a framework, it proposed, would offer new opportunities for creating clearer linkages between education, training and the world of work, and new ways for industry to clarify its expectations of young people and the education and training system.

The Finn Committee recommended that the proposed framework of employment-related key competencies be based on what it called key areas of competence:

- Language and communication
- Mathematics
- Scientific and technological understanding
- Cultural understanding
- Problem solving
- Personal and interpersonal characteristics

This was the starting point for the Mayer Committee.

The Meaning of 'Competence'

The first issue that occupied the Mayer Committee when it embarked on its task of further development of the Finn recommendations on key competencies was the term 'competence' itself. As the QERC Report observed, the term competence focuses attention on outcomes. Competence is about what people can do. Words have histories, however, and while the term had been embraced generally by the training sector the school sector was wary. People in the school sector have long memories and for many it is hard not to equate the idea of competence with the chequered history of attempts to specify tight behavioural objectives.

Competence can be defined narrowly to mean the demonstrated capacity to do a specific task and, even more narrowly, by detailed specification of the conditions under which performance of the task is to be demonstrated. From the outset, however, the Mayer Committee was united in the view that narrow definitions of this sort would not provide an appropriate basis for development of the key competencies. Rather, it adopted a broad definition which recognised, first, that performance is underpinned not only by skill but also by knowledge and understanding; and, second, that competence involved both the ability to perform in a given context and the capacity to transfer knowledge and skill to new tasks and situations. While the need to revisit this definition remained throughout the work that proceeded, the breadth of focus received general acceptance.

In keeping with the second half of the definition, the descriptions of the competencies were characterised by an applied focus. Mathematics, for example, became 'using mathematics' in the first material developed. This may seem too small a point to mention given that the task was to identify competencies, but it marked the first point of agreement in the process of defining the key competencies. In due course the capacity to describe the application of knowledge and skills in an integrated way became a critical test of proposed competencies. As the applied focus began to take shape it also became increasingly apparent that the key competencies could not be defined by conventional discipline and subject boundaries. Using mathematics does not only go on within the subject called mathematics: mathematical knowledge and skills are applied in subjects across the curriculum spectrum. This applied and cross-curricular orientation of the proposed competencies was given a positive reception in the initial period of consultation.

The Meaning of 'Employment-Related'

The issue arousing most comment in that early stage was the intended scope of application of the key competencies. In essence, this was an argument about the meaning of the term 'employment-related' and about the extent to which it is possible, or desirable, to define a set of competencies with particular application to employment as opposed to any other area of human activity. In many ways the issue seemed to be more about the question of labels than the actual substance of the proposed competencies. The

competencies identified in the initial stage of the Committee's work included: Using Mathematics; Expressing Ideas and Information; Collecting, Analysing and Organising Ideas and Information; and Working in a Team. As essential competencies these did not arouse a great deal of argument. What was widely disputed, however, was their identification as 'employment-related'.

The Committee first interpreted this issue in terms of the relationship between the key competencies and the broader purposes of general education. Would the definition of employment-related key competencies lead to a narrowing of the purposes of general education? This is another isssue on which the long memories of those in the school sector came to the fore. It is not hard to identify examples of attempts to align school programs more closely with transition to employment. Like the Finn Committee before it, the Mayer Committee emphasised its view that the key competencies needed to be consistent with the broader goals of schooling and should form an essential part of general education but its perspective was only partial and intended to be. It also acknowledged the argument for application beyond employment in its definition of the key competencies:

> Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. Key Competencies are generic in that they apply to work generally rather than being specific to work in particular occupations or industries. This characteristic means that the Key Competencies are not only essential for effective participation in work but are also essential for effective participation in further education and in adult life more generally (AEC/MOVEET 1992a, 15).

Over time, a further perspective on this issue emerged in discussion of the nature of work. In particular the need to take a broad view that acknowledges changes in the make-up of the Australian workforce and the recognition of domestic, community and other forms of voluntary and unpaid work emerged as an issue. Once the notion of employment-related is framed in these broader terms, the idea of drawing a neat distinction between competencies that apply to employment and competencies that apply to other areas of human activity rapidly loses meaning. But the idea of employment-related does not.

The Meaning of 'Key'

In some ways this part of the language of the key competencies caused the least debate; in other respects it caused the most. Generally accepted as meaning essential, there is a further meaning of 'key' that is relevant to the key competencies. Key in its lateral meaning of something that unlocks a door suggests that the set of key competencies enable people to put their general education to work — to use their knowledge and skills in purposeful ways. The issue, however, was which competencies were, in fact, 'key' in both senses.

Deciding on the Set of Key Competencies

It would take a good deal more space than is available here to trace the evolution of the set of key competencies the Committee finally recommended to the Ministers. It is debatable whether the whole story is worth telling anyway. In development exercises of this sort, especially when the parties begin with as varied a range of perspectives as they did in this case, as much time is spent working out whether everyone is talking about the same thing as is spent moving the process forward. And it is often the least important steps that require the greatest labour; and most significant ones occur almost before anyone has noticed them. Two of the development are set out to give valuable insights into the process.

Establishing the Applied and Cross-Curricular Emphasis of the Key Competencies

The first of these relates to the process of constructing and describing the key competencies. As was noted earlier, the set of key areas of competence recommended by the Finn Committee provided the starting point for identifying the key competencies. This proved to be both a help and a hindrance.

On the plus side, it is always easier to work from a base than to start with a blank sheet. The Finn list of six key areas of competence provided that base and the final set of key competencies retains plenty of evidence of its antecedents. Taking the key areas largely as given, the task appeared to be one of spelling out the contents of each area and organising them into a sensible structure.

It did not take long for that idea to come unstuck; and the problems were several. One was the problem of overlap that cropped up at each turn — is interacting with others part of language and communication or part of personal and interpersonal characteristics? Another was the problem of distinguishing competencies from bodies of knowledge. The set of key areas seemed to comprise something of a halfway house between the two. A third was the issue of the missing areas of the curriculum. Given the close resemblance of four of the key areas to four areas of the curriculum, what was the place of the others? Advocates for art education, for one, had a good deal to say about that question. If the key competencies were to represent a new 'core' curriculum, what would be the fate of those areas of the curriculum that did not win a place in the set?

These issues led discussion back to the concept of competence, particularly to the applied focus and its implications referred to earlier, and to the need to establish some consistency in the way the concept was to be applied across the Finn key areas. The result was a strengthening of the emphasis on application and a shift away from the six key areas as an overarching organising structure for the key competencies towards the role of reference points for development of the set. The Committee was at pains to make clear that this approach did not deny the importance of bodies of knowledge — competence is meaningless in a knowledge vacuum. But it did resolve that bodies of knowledge cannot of themselves be described as competencies.

Cultural understanding became the *cause célèbre* of this development. While interpretations of the meaning of cultural understanding varied widely many commentators shared the view that failure to include cultural understanding as a key competency would be a grave omission. Though complicated with concerns about the parlous state of the humanities in the curriculum more generally, and particularly at the post-compulsory level, this concern was earnestly expressed. Try as it did, however, the Committee was unable to identify a key competency that would satisfy this concern. Each line of investigation demonstrated the integral place of cultural understanding as a foundation for the key competencies (for example, an understanding of cultural differences is essential for working effectively with others and in teams) yet none led to the identification of an attribute that was consistent with the committee's definition of competence which was not already encompassed by one of the key competencies already identified.

This development had two further consequences. The first was that strengthening the emphasis on application, and removing the perceived curriculum-areas structure of the titles of the key areas, made quite clear the cross-curricular focus of the key competencies. Teachers from subject areas right across the curriculum needed little prompting to come up with examples of the ways in which each of the seven key competencies (in the draft form in which they appeared by the second stage of consultation) could be developed and applied in their courses. As often as not they would cite examples in which most, if not all, of the key competencies could be called upon.

The other consequence was that fears were allayed of the list of key competencies extending into multiples of ten, or even more as the most dire predictions suggested. Again, once the quasi-structure of curriculum areas was removed, the problems of overlap and duplication became much easier to resolve. The need for simplicity had been made loud and clear by potential users from all sectors. If the key competencies could be contained within a number in the vicinity of seven there was a prospect that this basic but very practical demand could be met.

Establishing the Future Orientation of the Key Competencies

The second of the signposts relates to the substance of the key competencies. Identifying the competencies essential for preparation for employment begs quite a few questions. Are these the competencies you need to be able to operate effectively on the first day on the job or once you have some experience? Is this the job a young person might get on first entering the paid workforce or is it meant to apply to the jobs he or she might do over time? Are the competencies meant to apply to all sorts of jobs? Equally? And, is the reference point to be the current demands of jobs or the sorts of demands that are emerging as the nature of work and work organisation is changing?

These questions and more were raised when the Committee undertook a preliminary industry validation study of the draft set of key competencies. The initial work on defining the key competencies from the key areas proposed by the Finn Committee had been informed by the reports on the attributes required and valued most highly by

industry for entry to the workforce. But it was the direct and practical input provided by representatives of the industrial parties in selected industries, together with supervisors and young workers themselves, that focused the Committee's attention most clearly on the need to establish a future orientation for the key competencies and helped to clarify the distinction between the key competencies and industry competency standards.

It came as a surprise that 'solving problems' was not in great demand in many current jobs at entry-level in industry, at least according to those who do those jobs. And where it is in evidence the level of demand is often fairly basic. The same can be said, for most if not all, of the key competencies. It was apparent from the preliminary industry validation that a current orientation for the key competencies would limit the expectations that could reasonably be expressed through the competencies. It might even rule some of them out of consideration. In traditional approaches to industry validation of competencies the critical test of validity is evidence of the competencies in use. This is appropriate to the validation of industry competency standards. Yet it can be argued that it is less appropriate to the key competencies. This is not only because the key competencies are intended for the future workforce, but also, most importantly, because interest in education and training generated in recent times within industry stems from the changes taking place in the nature of work and work organisation in response to the demand for increased productivity to match the competition in world markets.

Australia's workplaces are changing. Whatever the arguments about the best ways of managing our economy, there is a significant level of agreement among employer organisations and unions about the ways in which Australian industry needs to change to achieve greater productivity. And, while the full impact of those changes may not have reached into every aspect of every shop floor, they are already becoming evident. Pyramid-like management structures are being replaced by flatter structures that provide for devolved and shared responsibility for planning and decision making. Highly specialised functions are being incorporated into broader work roles and an increasing emphasis is being placed on teamwork as an effective way of tackling many work tasks. In workplaces which have adopted these practices there is an increasing recognition that technical competence needs to be matched with a much broader range of capacities. In the words of the Confederation of Australian Industry:

> workplaces that have participative management styles, shared goals, multi-skilled workers and flat management structures ('new workplace cultures') are not only more productive than their converse ('old workplace cultures') but also cannot operate without employees whose personal and social skills are valued as highly as their technical competence (1991, 6).

Characteristics of the emerging nature of work and work organisation that recur consistently in analyses of these developments are:

- teamwork as opposed to individual work
- participation in management and the processes of work as opposed to fixed hierarchies

- multi-skilling as opposed to separate skill classifications and rigid segmentation of duties.

Fixing on a future orientation not only helped to clarify issues about the relevance of specific key competencies but also assisted discussion of the issue of performance levels, particularly in terms of the need for the range to embrace a challenge to improvement.

The preliminary industry validation study yielded other outcomes. In particular, it drew attention to the issue of the place of values and attitudes among the key competencies. The Committee resisted the view that values and attitudes such as punctuality, initiative and honesty should be included. It maintained the view that a set of key competencies can only contain those things which can be developed by education and training, which do not require some innate predisposition or adherence to a particular set of values and which are amenable to credible assessment. It did acknowledge, however, that there was an ethical dimension to the key competencies, especially in 'working with others and in teams', and that attitudes form an integral part of specific learning and training settings and would inevitably be reflected in the development and application of the key competencies.

Is it the Right Set?

An International Comparison

In the course of its work the Committee kept an eye on developments elsewhere. At about the same time as work on the key competencies was initiated in Australia, national governments in the UK, USA and New Zealand initiated their own versions of the same task. This is hardly surprising since the conditions for development of the key competencies are by no means confined to Australia's shores. The work of the UK National Council for Vocational Qualifications (NCVQ) was well advanced when the Mayer Committee began, the outcomes of the US Secretary for Labour's Commission for Achieving Necessary Skills (SCANS) became available towards the end of the Committee's life, and the draft outcomes of similar work as part of the National Curriculum in New Zealand came to light shortly after it finished. What was remarkable, though in many ways equally unsurprising, was the similarity of the four sets of outcomes.

The key competencies are called 'core skills' in the UK, 'workplace know-how' in the US and 'essential skills' in New Zealand. In each case the initiatives have resulted in a set of statements about skills/know-how/competencies which are:

- not specific to any particular subject area, educational program, qualification or awarding body, nor to any specific vocational task or career path, but which focus on generic attributes that can be learned through formal processes and that apply generally to working life
- common to both general education and vocational education and training
- concerned with outcomes, in each case defined as precisely as possible with various levels to indicate the variety of individual attainment.

Apart from the variations in nomenclature, the most notable differences among the results are the inclusion of competence in a modern foreign language in the UK set and the breakdown of the US workplace know-how into workplace competencies (resources, interpersonal skills, information, systems, technology) and foundation skills (basic skills, thinking skills, personal qualities). The Mayer Committee noted with some interest the inclusion of languages as one of the UK core skills. There was some enthusiasm among Committee members for inclusion of a language other than English as one of the key competencies. It was finally resolved, however, that the requirement that key competencies be essential precluded this, at least in the immediate future.

As the mapping of the four sets of outcomes in Figure 2 shows, however, there are more similarities than differences.

Responses to the Set

The AEC and MOVEET Ministers received the Committee's report at their meeting in September 1992. They endorsed the set of key competencies and the definition on which it was based. They also agreed that consultation should continue and that States which wished to participate would undertake further work to explore what it would take to put the Committee's proposals into practice — included in this was further industry validation and field testing of the key competencies in school and training settings. The results of these activities would inform decisions about implementation at the next joint meeting of the ministerial councils planned for April 1993 and later rescheduled to July.

That work is proceeding under the auspices of a working party that is gradually increasing in size to the proportions of the Mayer Committee itself. Meanwhile, debate about the set of key competencies continues, principally in the school sector. It is hard to ascertain where the balance of opinion lies. Until recently at least the negative voices have been the loudest. Some have argued that the list of key competencies contains significant omissions, most notably cultural understanding, creativity and languages other than English. Others have couched their concerns in terms of a need to set the key competencies within a more comprehensive national framework of education standards. A third line of attack has been aimed at a more fundamental level, arguing that the notion of key competencies spells doom for general education, the abandonment of knowledge and even a decline in standards of literacy and knowledge.

Possibly most intriguing has between the somewhat contradictory response that there is no need for the key competencies because they are already included in school curricula, followed by the argument that their introduction would demand massive resources to service the wholesale changes to curriculum and teaching approaches.

The Bottom Line

There is little doubt that debate over whether the Committee got it right with its list of key competencies will continue regardless of the decision that is taken by the Ministers in July 1993. It is not only inevitable but proper that it should. No matter how much

Figure 2

AUSTRALIA Key Competencies	UK (NCVQ) Core Skills	USA (SCANS) Workplace Know-How	NZ Essential Skills
Collecting, Analysing and Organising Information	Communication	Information Foundation Skills (Basic skills)	Information Skills
Communicating Ideas and Information	Communication Personal Skills (Improving own learning and performance)	Information Foundation Skills (Basic skills)	Communication Skills
Planning and Organising Activities	Personal Skills (Improving own learning and performance)	Resources Foundation Skills (Personal qualities)	Self-management Skills Work and Study Skills
Working with Others and in Teams	Personal Skills (Working with others)	Interpersonal Skills	Social Skills Work and Study Skills
Using Mathematical Ideas and Techniques	Numeracy: Application of number	Foundation Skills (Basic skills)	Numeracy Skills
Solving Problems	Problem Solving	Foundation Skills (Thinking Skills)	Numeracy Skills Decision-making Skills
Using Technology	Information Technology	Technology Systems	Information Skills Communication Skills

thought goes into devising something like a list of key competencies, the outcome must remain open to debate and revision. The Mayer Committee recommended that review should form a regular part of implementation of the key competencies. The issue is whether a more informed debate about the 'right-ness' of the set will get the chance to proceed and whether the potential for the key competencies to provide a unifying element in post-compulsory education and training, able to cross State boundaries and bridge the school and training sectors, will therefore get the chance to be explored. Those things can only happen if the decision is made to give the key competencies a place in post-compulsory education and training.

The following table comes from a survey published by the Business/Higher Education Round Table in 1992.

Figure 3

Emphasis given to suggested characteristics of university graduates

Business		University
1	Communication skills	7
2	Capacity to learn new skills and procedures	5
3	Capacity for cooperation and teamwork	8
4	Capacity to make decisions and solve problems	3
5	Ability to apply knowledge to the workplace	4
6	Capacity to work with minimum supervision	6
7	Theoretical knowledge in professional field	1
8	Capacity to use computer technology	2
9	Understanding of business ethics	12
10	General Business Knowledge	11
=11	Specific work skills	9
=11	A broad background of general knowledge	10

The business respondents to this survey were people responsible for recruiting and managing new graduates. The university respondents were lecturers from professional faculties. They were asked to rank in order of importance the emphasis they placed on a list of suggested characteristics of university graduates. The survey was released after the Mayer Committee had completed its work, but the resemblance between the characteristics given greatest emphasis by industry and the set of key competencies recommended by the Committee hardly needs to be pointed out.

The column showing the university responses has been included more to prompt reflection than for detailed comparison. Without wishing to suggest that industry requirements should of themselves determine what goes on in schools, let alone universities, it is interesting to consider what might be revealed by a further comparison with the relative emphases given to these characteristics as outcomes of school curricula at the post-compulsory level, as perceived by teachers of subjects at that level. Which of the sets of results would it more closely approximate? The answer is not hard to predict.

It is worth remembering the similarity between the key competencies and the list of general competencies that the QERC Report identified even though its focus was on school education rather than the link to employment. It is also interesting to observe that the key competencies in many ways mirror the skill developments that feature prominently in the early years of schooling, but which by the post-compulsory years

are more likely to be assumed than to be the explicit focus of attention. As more than one teacher has observed, it is the absence of those same competencies that marks young people out for failure when they enter the post-compulsory years.

Largely overlooked in the debate over the key competencies has been the point made by the Mayer Committee in the opening pages of its report, which also found its way into the title of the condensed version of the report *Putting General Education to Work*. The key competencies may involve some change of emphasis in schooling, especially in the secondary years (not only the post-compulsory), but they are neither new nor alien to progressive thinking in education. In fact they are a strong endorsement of the essential importance of a sound foundation of general education, not only for life in general but also for effective participation in the emerging patterns of work and work organisation. In other words, general education is not only a preparation for vocational education and training but the very core of vocational education and training itself. Those who care about general education and who have consistently sought to protect the broader purposes of schooling from the incursions of instrumentalism have reason to take heart.

References

Australian Education Council (1991) *Young People's Participation in Post-compulsory Education and Training* (Finn report). AGPS, Canberra.

Australian Education Council and Ministers of Vocational Education, Employment and Training (1992a) *Key Competencies* (Mayer report). Melbourne.

Australian Education Council and Ministers of Vocational Education, Employment and Training (1992b) *Putting General Education to Work: The Key Competencies Report* (Mayer report — condensed version). Melbourne.

Business/Higher Education Round Table (1992) *Educating for Excellence: Business/Higher Education Round Table 1992 Education Surveys*. Commissioned Report No. 2. Business/Higher Education Round Table, Melbourne.

Carmichael, L (Chair) (1992) *The Australian Vocational Certificate Training System*. Employment and Skills Formation Council, AGPS, Canberra.

Confederation of Australian Industry (1991) Paper on Vocational Education for the National Industry Education Forum. Mimeo.

Karmel, P (Chair) (1985) *Quality of Education in Australia*. Report of the Quality of Education Review Committee. AGPS, Canberra.

Mayer Committee (1992a) *Employment-Related Key Competencies for Post-Compulsory Education and Training: A Discussion Paper*. Mayer Committee, Melbourne.

Mayer Committee (1992b) *Employment-Related Key Competencies: A Proposal for Consultation*. Mayer Committee, Melbourne.

Reform of Australian Vocational Education and Training: A Competency-Based System

Lorraine Wheeler

Historical Background

In April 1989, the Special Ministerial Conference on Training agreed to the development of a Competency-Based Training (CBT) system for Australia. It based its decision on a report prepared by the Department of Labour Advisory Committee (DOLAC). The DOLAC report also included a proposed policy framework and appropriate systemic, legislative and administrative arrangements for the introduction of a competency-based trade training system.

Given developments in award restructuring in the Australian workforce, Ministers recognised that CBT implementation needed to be speeded up and broadened to cover all skill levels covered by award restructuring, and not just the trades areas.

Responsibility for devising a strategy and developing a timetable was given to the Commonwealth/State Training Advisory Committee (COSTAC). In May 1989 it established a working party to carry forward recommendations from the Ministerial Conference related to CBT. Membership comprised representatives of State/Territory training authorities and TAFE. Later, in November 1990, at the Special Ministerial Conference, COSTAC was subsumed into a new body; VEETAC (Vocational Education, Employment and Training Advisory Committee).

Ministers considered the development of national standards as critical in improving the training system. To this end they endorsed the establishment of the National Training Board (NTB) which commenced operations in April 1990. It was established as a public company, limited by guarantee and operating under a Memorandum of Understanding whereby Ministers from all States and Territories and the Commonwealth agreed to provide and accredit vocational education and training nationwide, within the framework of national competency standards. Such standards would act as benchmarks for course and curriculum development, accreditation, delivery of training, assessment and certification within the vocational education and training system.

Developments Overseas

The origins of CBT can be traced to US teacher training in the late 1960s and to its application to other professions in the 1970s. The UK has been applying these same principles to vocational training programs in the 1980s.

The British Government formally established the National Council for Vocational Qualifications (NCVQ) in October 1986 as an independent body, initially funded by the government, to implement the remit of reform set out in the government's white paper, *Education and Training — Working Together.* The remit covered England, Wales and Northern Ireland, but not Scotland, which has an independent education system. The Scottish system is similar and has an equivalent body, the Scottish Vocational Education Council (SCOTVEC).

The NCVQ was set up to develop a new system of qualifications that delivered the skills needed by industry. These new qualifications, based on units of competence, are called National Vocational Qualifications (NVQs). NVQs are based on standards of competence derived from analysis of current employment requirements in a particular vocation. Through Industry 'Lead Bodies', the employers and employees in the relevant industrial sector, occupation or profession are responsible for defining the requirement for qualifications (and therefore training).

The SCOTVEC performs a similar role in Scotland to NCVQ, but acts both as an awards body and accrediting agency, to produce a framework of Scottish Vocational Qualifications (SVQs) based on Lead Body standards. The Employment Department provides advice and steers the direction of programs to varying degrees. The participation of trade union representatives in the process of setting standards varies from sector to sector.

In 1985, the European Centre for the Development of Vocational Training (CEDEFOP) established a framework for comparing vocational training qualifications between Member States of the European Community. It was based on broadly defined levels of competence and provided the only effective method of comparison of vocational qualifications across the European Community.

The New Zealand Qualification Authority, established in July 1990, has a brief to develop a comprehensive and coherent framework for nationally recognised qualifications. The National Qualifications Framework was intended to provide a base for a coherent post-compulsory education and training sector, and a variety of learning pathways and opportunities for life-long education:

> The framework will promote access to learning and will measure achievement against clear standards. It will enable learning to be recognised in a consistent way wherever it takes place — in secondary schools, polytechnics, colleges of education, universities, private training establishments, *wananga, maae* and community agencies. It will also recognise skills developed on the job and experiential learning which is relevant to a qualification (NZ Qualification Authority 1991, 4).

In March 1992 the US Departments of Labour and Education embarked on a program of public consultation on skill standards. The public consultation process was envisaged as a process of building industry support for skill standards.

Public hearings on skill standards and certification were held around the country in April and the analysis of the testimony and submissions was published late in 1992. This pointed to broad consensus amongst industry groups, companies, unions, vocational education groups and governments in support of national voluntary industry-based standards. There was also broad recognition of the need for a national framework for skill standards and certification, to maintain the quality of the process. Significant elements of US industry quoted support for skills standards and training as one of the key responses to their perceived international competitiveness problems.

While those developing the skills standards approach in the US admit that they have a long way to go in developing industry standards, it is now increasingly clear that they will go through a training reform agenda that will be similar to Australia's in outlook. This includes the proposed establishment of a 'National Training Board' and 'Training Guarantee Levy', national 'youth apprenticeship' arrangements for non-college bound youth, and progress on the Kennedy legislation (drafted by Hilary Clinton) to create a 'national technical and professional standards board'.

In October 1992 a program of pilot projects was commenced, concentrating on developing and testing voluntary industry standards. This first lot of standards includes hospitality and tourism, metalworking, electronics, construction, retailing and printing, and there have been strong connections made between the Australian CBT scene and at least two of the pilot projects.

The Context of Change

It is no coincidence that across the globe nations are exploring means of changing the delivery of vocational education and training. In Australia, a shrinking manufacturing industry and increased pressure from international markets challenged traditional structures and modes of delivery of training. The situation was characterised by low retention rates for post-compulsory education and training and increasing rates of youth unemployment.

Reform of Vocational Education and Training

The proposals for the reform of vocational education and training is significant in that they reflect agreement by all nine governments of the Commonwealth, States and Territories, on national objectives, principles and methods which promise to provide the necessary coherence, greater quality assurance, industry relevance, portability, recognition of prior learning and more flexible and articulated pathways between education, training and industry. There is substantial reliance on the implementation of cooperative processes between all participants in vocational education and training; employers/employees, private/public providers, bureaucracy/private enterprises.

National competency standards form the basis of the new system which reflects the convergence of vocational and general education skills and knowledge and in which the focus is no longer on time served, or the inputs of training programs, but on demonstrated outcomes:

> National competency standards specify the skill and knowledge and the application of those skills and knowledge to the standards of performance in the workplace. They are developed by industry parties, based on the work structures within the particular industry and expressed in terms of workplace outcomes. They are regularly reviewed to ensure their continuing relevance (NTB 1992).

This new agenda aims to increase the skills of the workforce and thereby improve productivity and competetiveness, by creating a new flexible, responsive and efficient training system to support the skill needs of industry. The agreed principles and features of the new training system are:

- national competency standards to be the benchmarks for certification and accreditation by State and Territory training systems
- training systems to be nationally consistent and competency based
- articulation between modules and courses, and between training systems (ie, public and private training providers)
- recognition of individual competencies regardless of how gained (ie, through formal instruction, prior learning or on the job experience)
- skills linked to career paths through awards and restructured awards
- transferability and portability of skills both within and across industries
- training throughout the structure, with flexible entry and exit points
- equitable access to training for all workers
- an open training system responsive to industry needs.

Recent and significant developments in reforming vocational education and training have included:

Establishment of the Australian National Training Authority

On 21 July 1992, the Prime Minister announced that the Commonwealth, State and Territory governments had agreed to establish a new national system of vocational education and training to come into effect on 1 January 1994. It centres on the establishment of:

- a Council of Ministers; and
- the Australian National Training Authority (ANTA).

ANTA will be established as a Commonwealth statutory authority with a five-member board comprising independent experts. It aims to:

- ensure funding arrangements for vocational education and training
- provide a national approach to training policy
- closely involve industry in training needs development (through membership of ANTA and participation in policy/priority development and in State training

agencies. Industries will also provide advice through national Industry Training Advisory Boards (ITABs)
- foster a network of quality training providers.

Agreement on the National Framework for the Recognition of Training by States and Territories and the Commonwealth

The National Framework for the Recognition of Training (NFROT) was released by the CBT working party of VEETAC in November 1991. It proposes a national system for ensuring consistency in the accreditation of courses and training programs, and registration of training providers. An agreement putting this into effect was signed and came into operation on 1 August 1992. For the first time, not only was there agreement, but also a mechanism for delivery of consistency and congruence in vocational education and training between the States and Territories in Australia. The agreement details principles by which courses/training programs will be accredited and training providers registered.

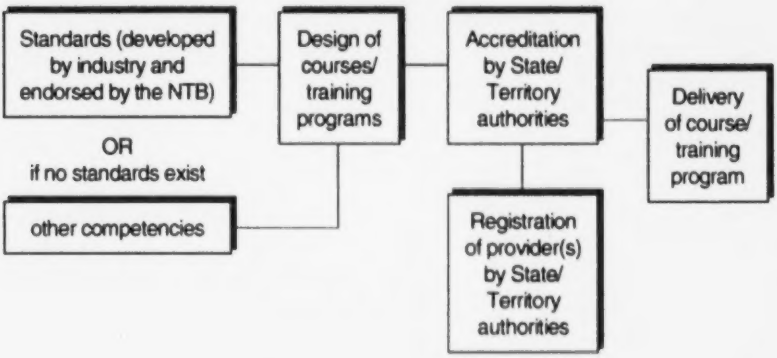
Under NFROT, registration of training providers will be based on six principles defined in the agreement, and will be for a period not exceeding the life of the accredited course or recognised training program which registration covers. Accreditation of courses/training programs under NFROT is the official recognition or assurance by a State or Territory accrediting authority that:
- the contents and standards of a course are appropriate to the credentials to which it may lead;
- the course and methods adopted in delivering it are likely to achieve the purpose for which it was or will be introduced;
- the curriculum, and assessment methodologies, are based on national competency standards, where these exist; and
- there is compliance with the ten defined principles stated in the NFROT agreement.

Accreditation is for a period of up to five years and registration of the provider(s) of that course/training program is linked to that accreditation period. The NTB is responsible for establishing and maintaining a national register of accredited courses and training programs and of registered providers (as well as a register of competency standards and competency standards bodies). Under the new system once courses/training programs have been accredited in one State or Territory, they will be entered on the national register and other States and Territories will recognise that accreditation. Accreditation is only required in one State or Territory to achieve national accreditation.

Reforming Vocational Training through the Australian Vocational Certificate

The Employment Skills Formation Council, a council of NBEET, released its report *The Australian Vocational Certificate Training System* (known as the Carmichael Report) in March 1992. It built on the recommendations of the Finn Report on post-compulsory education and focussed on changing from a time served system to one

Standards and delivery are linked in the following ways:


Standards (developed by industry and endorsed by the NTB)
OR
if no standards exist
other competencies
Design of courses/ training programs
Accreditation by State/ Territory authorities
Delivery of course/ training program
Registration of provider(s) by State/ Territory authorities

based on recognition of competence. The proposed new system of entry level training, the 'Australian Vocational Certificate' (AVC), will entail a more flexible structure of training and work experience. This will include linking training available through secondary schools, TAFE and private providers, with work-based training through industry and other avenues such as skill centres. The AVC proposes to combine the aims of vocational and general education in a flexible way and to incorporate work of the Mayer Committee in identifying key competencies.

Three levels are proposed for the AVC, with a range of different pathways for acquisition of certification. As with the rest of the vocational education and training reforms, assessment will be competency-based and nationally consistent. Progressive implementation of the new arrangements will take place through substantial trialling and through pilot projects.

Reforming Credentials

The Recognition of Training Working Party of VEETAC examined the need to reform credentials within the vocational education and training system. A report was prepared by a consultant, David Rumsey, on the notional alignment of vocational education and training credentials against the Australian Standards Framework (ASF). This was considered by MOVEET, who confirmed the need to align vocational education and training credentials with the ASF and address the resulting issues for the current system. They also requested the working party to work on proposals for a coherent set of vocational education/training credentials (including drafting requirements and transitional arrangements).

An AEC/MOVEET working group was set up to consider the qualifications and credentials system. The group has two representatives from each of the schools, higher

education and TAFE/training systems, and is chaired by the Commonwealth. It aims to assess the means of implementing an overall national system of qualifications and credentials with particular reference to ensuring an effective interface between vocational education and training, schools and higher education sectors, and propose options for the structure and arrangements for such a system. The end of 1993 should see resolution of many of the issues related to reforming the credentials system.

The Role of the National Training Board

The primary role of the NTB is to endorse national competency standards developed by industry parties. These standards then become the benchmark for all the downstream implementation of the CBT system — by industries and enterprises, TAFEs and other training providers and government training authorities and regulators. The NTB also registers industry training agents under the training guarantee legislation.

The Board has evolved its approach to the CBT system since it began operation. This approach is based on several key principles. The Board exists to endorse national standards, as the goal of the system is the development of standards that are acceptable in all States and to the industrial parties. Bodies recognised by the Board to develop standards must be representative of the industry parties that make up the industry, be able to demonstrate that they have the support of the industry, are committed to developing the standards and keeping them under review, and implementing them in terms of curriculum, accreditation, assessment and certification.

There has to be commonality in the form of the standards, as national comparability and portability are not going to be possible if every industry expresses its standards in different ways. To this end the NTB has provides a format for the presentation of standards. The ASF, devised by the NTB enables comparisons between levels of competency in standards across industries, between industries, and between sectors within industries. The set of principles on which the NTB operates is:

- that work of the Board will be done in partnership with industry, training authorities, and education and training providers
- standards will be developed and endorsed within a formal framework
- standards will have broad applicability across Australia and be able to be understood in the workplace and training environments
- standards will define performance outcomes required by the industry parties and, in practice, be deliverable through training and be assessable
- standards will be monitored by the CSB and reviewed on a regular basis to ensure continuing relevance
- standards may be fully endorsed by the Board or have a conditional endorsement
- standards are only to reflect the requirements of a given area of work and should not lead to discrimination against any individual on the grounds of age, gender, cultural or social background.

Competency Standards Development

Competency standards development is seen as the foundation stone of the emergence of a consistent framework which will ensure training which provides for articulation, portability and transferability. For the individual this means incentives to undertake training since it will facilitate adjustment to changes in the industrial environment. It will also enable consistent national accreditation and delivery of training programs and their consequent assessment and certification. Consequently any standards which are developed must also reflect not only industry's current but future needs, so that responsiveness to change is maximised.

VEETAC set targets to be met by the end of 1993 in relation to the development of industry standards. These targets are that 90 per cent of the workforce will be covered by CSBs and 50 per cent of the workforce will be covered by national competency standards.

Progess in meeting these has been significant so far in that approximately 40 CSBs are developing national competency standards, covering around 75 per cent of the workforce. These statistics are continually increasing and are startling considering that two years ago they were nonexistent. There has been considerable progress also by individual enterprises in utilising the competency format to develop their own standards. More than 12 CSBs have had standards endorsed by the NTB and despite the fact that this represents between 15 per cent and 20 per cent of the workforce, the rate of standards development and endorsement is rapidly increasing and is expected to meet the VEETAC target.

Competency standards are developed generally on a project basis, to cover the different strands of an industry, with the work overseen by a CSB. The CSB must be formally recognised by the NTB for the purpose of developing, maintaining and submitting national competency standards for endorsement. The Board would require verification that the proposed CSB represented the industry or industry sector nationally, and that it had access to expertise in the development of industry standards.

CSBs generally are comprised of members of Commonwealth/State/Territory ITABs and/or from bodies established or recognised under industrial awards for this purpose. Only one body will be recognised for each industry or sector of an industry.

There are also CSBs which have been formed which do not represent an industry but for which the same guidelines operate. These are CSBs which have the function of developing standards which have a cross industry application, such as developing assessors and workplace trainer standards. There is no assessor or workplace trainer industry but the intention is that such standards which are developed to cover whole or part of a work role, will be incorporated into industry standards where appropriate.

What Do Standards Look Like?

In the interest of consistency and comprehension, national competency standards need to be expressed in a common format. The following sets out the common features:

A **Unit of competency** comprises a title, a short description of its purpose where appropriate, and its constituent elements of competency, together with their associated performance criteria. It will usually include a range of variables and it may include an evidence guide. A unit is the lowest level at which competency can be certified under NFROT and credit transfer accorded. The title refers to the defined area of competency, and is written in output terms. The NTB prefers units to provide an appropriate balance between breadth and specific application to ensure that they have both meaning in the specific workplaces and provide transferability of competencies.

Elements of competency describe, in output terms, things that an employee who works in a particular area is able to do. Such actions or outcomes are both demonstrable and assessable.

Performance criteria set out the required outcomes by which the unit of competency and its elements as a whole can be judged by an assessor as being performed to the level acceptable in employment. The performance criteria of a unit provide the basis for the design of courses and curriculum, and for assessment. The NTB has designed a set of principles relating to writing performance criteria, in an effort to ensure quality control.

The **Range of variables statement** places the unit within the context of its application in the industry and links the broad industry applications to specific requirements. It also provides a focus (along with performance criteria) for assessment and the development of training. The range of variables statement is the means by which industries can readily update standards according to technological or workplace changes.

The **Evidence guide** is optional and usually covers specific requirements for assessment (including underpinning knowledge and skills and prerequisite units) as well as the differing environments appropriate to assessment.

Australian Standards Framework

The Australian Standards Framework (ASF) is a set of eight competency levels which serve as benchmarks and provide a bridge between the competency requirements of work, and the vocational education and training and certification system. Work, training and credentials can therefore be related by using these eight competency levels. The ASF does not reflect individual acquisition of competencies, but rather, the skill requirements of jobs in the changing workplace.

The framework serves a number of important roles in providing:

- benchmarks to enable comparisons between levels of competency in standards across industries, between industries, and between sectors within industries
- a work-based benchmark for alignment of vocational credentials and other forms of recognition of competency
- a base for specifying competency levels required by the workforce, and for setting national attainment targets

- linkage between the requirements of work and the outcomes of education and training, providing a basis for relevance of training now and in the future
- a basis for promoting consistency and flexibility in the vocational education and training system
- a basis for the recognition of prior learning
- a basis for the recognition of competency acquired overseas.

Some Continuing Issues

The framework for the reform of vocational education and training has been carefully formulated and continues to be reviewed and revised in accordance with issues as they arise. There remain a number of areas where further developmental work is being undertaken. These include:

Avoidance of Bias

In 1991 the NTB produced the document *Eliminating Gender Bias in the Development of National Competency Standards: an Addendum to National Competency Standards Policy and Guidelines*. The Board is concerned that CSBs, in the process of developing standards and in maintaining them (including their review), do not directly or indirectly discriminate (through language or methodology) against individuals on the grounds of age, gender, cultural or educational background. The NTB therefore requires evidence that this condition has been met by CSBs.

Proposed new arrangements under NFROT, especially those for recognising and credentialling prior learnings (RPL), are also aimed at ensuring equity in the vocational education and training system. RPL will not be tied to specific contexts, and will encompass learning gained on or off the job, locally or overseas, in formal education settings or otherwise. This approach of multiple pathways to achievement of competency opens doors for targeted groups to have their competencies recognised.

Literacy and Industry Standards

The requirement to have standards which are forward looking may also create tensions relating to the disparity which may exist between skill levels of the existing workforce compared with those which may be required in the future. This is particularly relevant to the incorporation of literacy requirements in competency standards.

It could be tempting for industries to present a high profile by defining unrealistic competencies in the area of communication, of which literacy is a part. However industries are to identify only those competencies which directly relate to performance in the workplace. This may create difficulties for training providers in ensuring that the level of literacy required to undertake training does not outstrip that required for communication in the workplace.

Key Competencies and National Competency Standards

The work of the Mayer Committee in defining the key competencies and their performance levels has assisted resolution of some of the issues related to literacy. Industries, in the process of developing standards, have grappled with the notion that there appear to be some general/generic/underpinning competencies which contribute to overall performance in the workplace.

Key competency definitions not only provide a common language for describing these broad competencies, but, if key competencies are identified in industry standards at a later date, information will be provided to trainers about the broad nature and 'level' of delivery of training. It would also communicate to schools, and careers advisers, information about the particular skills required of an individual entering a particular industry or sector of an industry. Colin Ducker, in another paper in this volume, looks at this issue.

Relationship of Competency Standards to Higher Education

Many professions already are developing competency standards according to NTB guidelines, assisted by the National Office of Overseas Skill Recognition (NOOSR). It is not intended that these standards be endorsed by the NTB, although professions and CSBs can agree to put them forward for endorsement as part of industry career paths, in an effort to assist articulation. This has been facilitated by defining operating mechanisms between the NTB and NOOOSR, which has responsibility for assisting standards development in the professions. It should be noted that the relationship between standards developed by the professions and the delivery of education by self-accrediting higher education institution is different to that which exists between industry standards and other vocational education and training providers. It will be up to the professions concerned, and the individual institutions to resolve the way in which standards will impact on course delivery.

Issues of credit transfer and articulation, that have always existed between the sectors, will tend to be of even greater concern with vocational education and training following a competency-based path. The degree to which higher education will be influenced by these changes is yet to be seen, but no doubt the dialogue and debate will continue.

Full Expression of Competency

The NTB had articulated the 'broad concept' of competency which encourages transferability and portability into new and different situations. Within this broad concept of competency is the requirement not only to perform individual tasks, but to manage a number of different tasks, deal with unexpected changes to routine and to play a responsible role in the workplace.

It is not an easy task for industries to identify clearly these broad aspects of competency, or for trainers to deliver programs which adequately capture all components.

Each application of competency-based principles to a new area of training is a fresh problem, reflecting the evolving nature of the reform process in which we are all engaged and by which we are challenged.

References

Australian Education Council (1991) *Young Peoples' Participation in Post-Compulsory Education and Training* (Finn). AGPS, Canberra.

Australian Education Council and Ministers of Vocational Education, Employment and Training (1992) *Putting General Education to Work: The Key Competencies Report* (Mayer). Melbourne.

CBT Working Party of VEETAC (1992) *Assessment of Performance Under Competency Based Training: Administration of Competency Based Training*. Sydney.

Commonwealth Department of Employment, Education and Training on behalf of the Vocational Education, Employment and Training Advisory Committee (1992) *Essential Features of Australia's Training Systems*. AGPS, Canberra.

Commonwealth/State Training Advisory Committee (1990) *Strategic Framework for the Implementation of a Competency Based Training System*. Canberra.

Department of Employment (1986) *Education and Training — Working Together*. Cmnd 9823, London HMSO.

Jessup, G (1991) *Outcomes: NVQs and the Emerging Model of Education and Training*. The Falmer Press, London.

Kearns, P (1992) *Competency-Based Approach to Training Review*. Competency Based Training Working Party of VEETAC, Canberra.

National Board of Employment, Education and Training (1992) *The Australian Vocational Certificate Training System: Report of Employment and Skills Formation Council*. Canberra.

National Board of Employment, Education and Training (1991) *Progess and Prospects in Improved Skills Recognition: Commissioned Report No 10*. AGPS, Canberra.

National Training Board (1991) *Eliminating Gender Bias in the Development of National Competency Standards: An Addendum to National Competency Standards Policy and Guidelines*. Canberra.

National Training Board (1992) *National Competency Standards: Policy and Guidelines Second Edition*. Canberra.

National Training Board (1993) *Third Annual Report 1991/92*. Canberra.

New Zealand Qualifications Authority (1991) *Designing the Framework: A Discussion Document About Restructuring National Qualifications*. Wellington.

New Zealand Qualifications Authority (1991) *A Qualifications Framework for New Zealand*. Wellington.

Rumsey, D (1991) *The National Alignment of Vocational Education and Training Credentials to the Australian Standards Framework*. ROT Working Party of VEETAC. Canberra.

Steering Committee: CBT Implementation Framework Project for VEETAC/CBT Working Party (1992) *Framework for the Implementation of Competency-Based Training*. Canberra.

TAFE NSW, SSAB WA and DEVET WA (1992) *CBT How's it done? Competency-Based Education and Training An Interactive Workshop*.

Vocational Education, Employment and Training Advisory Committee (1991) *National Framework for the Recognition of Training*. Melbourne.

Vocational Education, Employment and Training Advisory Committee (1992) *Vocational Education and Training Credentials: A Progress Report*. Canberra.

Key Competencies

Linking Key Competencies and the National Curriculum Agenda

Rob Randall

The National Statements and Profiles

The Australian Education Council (AEC) statements and profiles are the result of work which commenced in 1989 with agreement on ten common and agreed goals for schooling. This argument was spelt out in a document known as *The Hobart Declaration on Schooling*. Subsequent to the 1989 declaration it was agreed that learning area statements and profiles would be developed for each of eight learning areas. These areas are English, health, languages other than English, mathematics, science, studies of society and environment, technology and the arts. Each State and Territory, through representation on the AEC's Curriculum and Assessment Committee (CURASS), has been involved in the development of the statements and profiles. It is expected that the statements and profiles will be completed by June 30, 1993.

Learning area statements expand on the common and agreed goals, defining a curriculum area by outlining its essential elements and showing what is distinctive to the area. The statements are intended to be used as a resource for course development at the system and school level. It is also intended that they will provide an agreed basis for the development of resource materials for schools teachers, and students, for professional development activities and for provision of public information about the curriculum of Australian schools.

Profiles constitute a description of the typical progression in learning outcomes achieved by students during the years of schooling for each of the eight areas of learning. They consist of four elements at each of eight levels:

- a level statement, which describes the characteristics of students' achievement at the level
- a series of student outcome statements, organised within strands, which describe the skills and knowledge that students typically acquire as they progress in that area of learning
- pointers which assist teachers in understanding the meaning of the outcomes
- annotated work samples of student work which are characteristic of the level.

Figure 1 provides an example of outcome statements and some pointers for two levels of the 'Chance and Data' Strand of the draft Mathematics Profile.

Figure 1

Examples of outcome statements and some pointers for levels 3 and 4 of the Chance and Data Strand of the draft Mathematics Profile

Level 3:
Contribute to generating and answering questions about a set of data by trying alternative ways of classifying and sequencing it.

This will be evident, for example, when students:

- contribute to discussions about how to organise their data to help answer a specific question, e.g. a question about types of animals in their neighbourhood;
- organise measurement data in sensible sequences, e.g. cut paper to match group numbers' arms, write names on the tape, order the tapes by length;
- organise data in simple diagrams which may include arrow diagrams, tree diagrams, Venn diagrams, Carroll diagrams.

Level 4:
Generate and answer questions about a set of data by classifying, sequencing and grouping it, choosing methods which are helpful for answering particular questions.

This will be evident, for example, when students:

- suggest ways to organise data in order to answer specific questions, e.g. given a class set of data of students' attempts to estimate 30 seconds, suggest how they could organise it to help answer the question 'How good are our estimates?';
- classify data in different ways to answer different questions;
- refine their descriptions of categories to make clear what a category includes and excludes.

It is intended that the learning area profiles will support improved teaching and learning through the identification of desirable learning outcomes and sharing good practices. They could be used also by teachers to monitor and report on the achievements of individual students and at the school or system level to represent those achievements to the wider community. The implementation of the profiles will be the responsibility of systems within each State and Territory.

If used as intended it is likely that teachers will focus on and keep records about students' progress in relation to the outcome statements. For each student such information will, over time, contribute to a profile of achievement in each learning area. Such information will provide the basis for reporting achievements to the student and to the student's parents. It will also provide key information for planning by the classroom teacher.

As the student outcomes are written in a developmental sequence it is envisaged that the teacher's judgement will be an 'on-balance' one. Such a judgement will involve consideration of preceding and succeeding outcomes in the particular sequence. That is, the teacher will make the decision that the student has demonstrated knowledge, skills and abilities more like those described in a particular outcome than described in preceding or subsequent outcomes.

The Key Competencies

In 1991 the AEC established a committee to review the participation of young people in post-compulsory education and training (the Finn Review). The Review Committee produced, in 1991, a report entitled *Young People's Participation in Post-Compulsory Education and Training*.

Amongst other things the report recommended a national project to identify the employment-related learning which young people should gain in the post-compulsory years at school or in training. As a first step, the Committee outlined six areas which it called key areas of competence: language and communication, mathematics, scientific and technological understanding, cultural understanding, problem solving and personal and interpersonal characteristics. It also recommended the establishment of a means of reporting on attainment of these competencies.

The Mayer Committee was responsible for further work on the key areas of competence. It produced two discussion papers and completed its final report in September, 1992. In the final report the Mayer Committee proposed seven key competencies:

- Collecting, analysing and organising information
- Communicating ideas and information
- Planning and organising activities
- Working with others and in teams
- Using mathematical ideas and techniques
- Solving problems
- Using technology.

The broad definition of competence adopted by the committee recognised 'that performance is underpinned not only by skill but also by knowledge and understanding, and that competence involves both the ability to perform in a given context and the capacity to transfer knowledge and skills to new tasks and situations' (Mayer 1992, 4).

The Mayer report argues that 'competence requires both 'heads on' and 'hands on'; the capacity to think about performance and also to perform. It goes beyond pure or abstracted thinking to the skilled application of understanding. Because the competent performer has grasped the principles behind the actions the possibility of transferability to new contexts is heightened' (Mayer 1992, 5). It is worth noting, however, that the degree to which the key competencies are transferable is contested by many and is the subject of considerable debate.

The key competencies are considered those 'that are essential for effective participation in the emerging patterns of work and work organisation across industries and occupations' and 'things that enable people to put their general education to work' (Mayer 1992, p(i)). In the final report three performance levels for each competence are described. In addition, there are descriptions of the major ideas which underpin each key competence and examples of applications of each competence covering both school and training settings. Figure two provides an example of one of the seven key competencies with descriptions of the three performance levels. The Committee's final report includes principles for assessment and reporting, options for approaches to implementation, further work to be done in preparation for implementation and a proposed process and timeline for this work to be done.

Figure 2

An example of one of the seven key competencies

Collecting, analysing and organising information focuses on the capacity to locate information, sift and sort information in order to select what is required and present it in a useful way, and evaluate both the information itself and the sources and methods used to obtain it. It is based on four main ideas: responsiveness to purposes of the information, the nature of the sources and the audience; application of access and retrieval techniques and principles; analysis and organisation of information; and evaluation of quality and validity of information.

PERFORMANCE LEVEL 1

At this level a person:

- follows existing guidelines for the collection, analysis and organisation of information; and
- accesses and records information from given sources; and
- organises information into predetermined categories; and
- checks information for completeness and accuracy.

PERFORMANCE LEVEL 2

At this level a person:

- clarifies the needs of the audience and the purposes of the information; and
- accesses and records information from a variety of sources; and
- selects categories or structures by which to organise information; and
- assesses information for relevance, accuracy and completeness.

PERFORMANCE LEVEL 3

At this level a person:

- defines the needs of the audiences and the purpose of the information; and
- critically investigates sources to identify and distil relevant information; and
- identifies within information the main organising categories and structures; and
- evaluates the quality and validity of information. (Mayer 1992, p 17)

Further work on the validation and benchmarking of the proposed key competencies is yet to be completed. It is expected that this work will lead to the confirmation of performance criteria for each level of the key competencies and the identification of examples of student work for each level.

Like the profiles the key competencies sequence is developmental (that is, the higher levels assume attainment of the lower levels). However, the sequence is staged rather than continuous, so the determination of attainment is taken to be explicit and unequivocal. That is, the scale is of a different kind from the profiles, typically requiring a yes/no judgement about the competence obtained. In addition, the key competencies refer to relatively integrated performance. They characteristically involve knowledge and skills drawn from across different strands and even different profiles. This drawing together of knowledge and skills into integrated performance is an important feature of the key competencies.

Linking the Profiles and the Key Competencies

The profiles describe desired outcomes for the full range of schooling and it is accepted that, as a reporting framework, they will be applied within the compulsory years of schooling. However, there is further discussion to be had as to whether they will be used to report the achievements of students in the post-compulsory years. While student outcome statements at the upper levels of the profiles are likely to represent many of the outcomes for the post-compulsory years, CURASS has determined that the writing of level 7 and level 8 outcomes does not imply a commitment by systems to use them at this level of schooling. Present, State-based, arrangements for accrediting courses and reporting on students achievement remain.

In contrast, it is envisaged that performance in relation to the key competencies will be reported, in a nationally consistent manner, for students in post-compulsory schooling and training. While achievements will be reported at this level of schooling it is acknowledged that the foundations for achievement of the key competencies are to be found within earlier years of schooling and therefore links need to be made to the curriculum of the compulsory years. A key recommendation of the Mayer Report is that 'the national statements and profiles being developed . . . encompass the foundation knowledge integral to achievement of the key competencies' (Mayer 1992, 53). This work is to be undertaken by CURASS and will ensure that, at the developmental stage, links are made between the profiles and competencies.

Further discussion about links between the two can be considered from, at least, two perspectives: the curriculum and teaching perspective; and the assessment and reporting perspective.

Linking Through the Curriculum

It is significant that many teachers who have considered the key competencies accept them as worthwhile and not new. In fact, many teachers will argue that they are a

subset of cross-curriculum outcomes that have been valued within school programs for many years, albeit with a particular work orientation. It is very likely that many of the examples of applications of the key competencies proposed in the report are currently used as themes or contexts to develop and to apply knowledge and skills. Figure three contains examples of proposed applications for Performance Level 2 of some of the key competencies. These and other examples of proposed applications could well be found within current schooling situations and would provide very sound contexts for the development of outcomes described within the profiles. As further work is undertaken on benchmarking and validating the key competencies and on the production of work samples for profiles, there will be a strengthening of links, centred on classroom activities and learning situations.

Figure 3

Examples of proposed applications for Performance Level 2 of some of the key competencies

- Collecting, analysing and organising information: establishing requirements of members of a group tour.
- Communicating ideas and information: giving directions on the best ways to get to a meeting venue.
- Planning and organising activities: establishing family and caregiving schedules.
- Using mathematical ideas and techniques: providing a quote for construction of a fence given the types of materials to be used and a regular area to be enclosed.
- Solving problems: generating alternatives in the provision of food for a group's overnight hike.
- Using technology: using electronic databases to conduct a literature search for a given area of investigation.

Given the recommendation that 'achievement of a given Performance Level should be based on assessment at that level in at least two different contexts' (Mayer 1992, 54), what might be wanting in current situations is the integrated and cross-curriculum nature of performance advocated in the report. This would be the case particularly in more formal areas of the curriculum. However, some of the less formal aspects of the school curriculum offer examples of situations where students have opportunities to develop and apply such competencies. These situations include service and recreational activities as well as integrated schooling and work experience programs.

At a more formal level links between the two can be made through curriculum development activity. Through the development of new courses it would be possible to incorporate and, hence, link outcomes described in the profiles with the key competencies. Such courses could be developed as exemplars, for modification by States and Territories or directly for accreditation by agencies. One possibility already

discussed by the Australian Curriculum, Assessment and Certifying Agencies (ACACA) is the development of new courses to match specific levels of the profiles and the key competencies.

Linking Through Assessment and Reporting

Earlier discussion on the types of judgements to be made when using the profiles, compared with those to be made when using the key competencies, highlighted differences between the two frameworks. Further, it is not apparent that links can easily be made between levels of achievement described in the profiles and the key competence performance levels. Thus, on the face of it, recommendations regarding key competencies could be seen as requiring the addition of another layer of assessment and reporting to existing arrangements. However, proposed and current work should provide information and advice on ways in which key competencies can be linked to the profiles (and existing State and Territory courses) for the purposes of assessment and reporting.

One option is to establish direct links between the upper levels of the learning area profiles and the key competencies. Such links would involve the identification of outcomes, within a number of learning areas, which provide evidence of a particular competency. For example, it is likely that aspects of 'planning and organising activities' could be found in profile outcomes for technology, mathematics and studies of society and environment. Links could be made between the outcomes and levels of attainment of this competency so that, on the basis of judgements about levels of attainment in the learning areas, a judgement about the level of competence would also be made. However, for this work to be successful it would have to be shown that not only were the aspects of the competency comparable but that the judgements of performance were also comparable.

It is worth noting that there is no immediate likelihood of the use of profiles as the principal reporting device during the post-compulsory years since they do not, in their present form, satisfy the range of demands for information about attainment at this stage of schooling. Therefore, further work on the upper levels of the profiles, the key competencies, and links between them, will also have to include consideration of existing course accreditation and reporting arrangements.

Such work might involve the identification and strengthening of the place of competencies within existing courses. This would be done by mapping the extent to which existing courses assist the development of the competencies and the extent to which existing assessment and reporting arrangements provide information about achievement of the competencies. As a result it might be possible to assess and report achievement of key competencies in addition to course specific achievements. To achieve the desired nationally consistent approach to the assessment and reporting of the key competencies this would require collaborative work between agencies with responsibility for the post-compulsory years. Such collaborative work might also result

in the development of a selection of common assessment tasks which could provide information about performance in several subject or learning areas and the level(s) of performance for the key competencies.

This latter option is likely to be the most profitable, if only because it builds on what currently exists rather than implementing new frameworks and procedures. In fact, work that has already been undertaken by agencies within the States and Territories indicates, as suggested in the Mayer Report, that current courses do provide opportunities for students to develop the key competencies. However, because of the varied accreditation and certification procedures that exist there is still considerable work to be done before a nationally consistent approach is achieved. In the meantime, it is likely that particular States and Territories will continue to explore and implement aspects of the key competencies recommendations.

Summation

The two national initiatives: national profiles and, on the other hand, key competencies, describe desired learning outcomes and advocate the use, in nationally consistent ways, of frameworks for reporting the achievements of students. However, the two initiatives do not, in the main, focus on the same group of students. As a result there is still need for discussion of the links between the two centres on the extent to which the curriculum represented by the national statements and profiles provide a foundation for developing the key competencies, and on the extent to which the key competencies represent a set of acceptable cross-curriculum outcomes that should be developed at all levels of schooling. The links between the two initiatives, in relation to their proposed reporting frameworks, are not as well defined or accepted. This is because of the different student target groups and because further work is required on the ways in which judgements about achievement of the competencies can and will be made.

Work undertaken nationally and within the States and Territories during 1993 should result in further agreement on the ways in which the two initiatives can be usefully linked.

References

Australian Education Council and Ministers of Vocational Education, Employment and Training (1992) *Putting General Education to Work: The Key Competencies Report.* (Mayer). Melbourne.

Key Competencies and Schooling in South Australia

Jim Dellit

Setting the Agenda

Each generation of educators imagines that they have seen or overseen (depending on who has set the agenda) significant changes in education. My generation is no exception in this and I believe we are witnesses to and, in relation to agenda setting, architects of, the most significant changes to education that will occur in our working lives. Furthermore, the success of these changes, success being a matter of good education and effectiveness, is to a large measure dependent on us as educators concerned with school-based education.

The key competencies as described in the Mayer Committee report, *Putting General Education to Work* (1992) have largely been accepted by industry groups, both employers and workers, as being the essential competencies that all students should develop through schooling to make the entry to work, paid or unpaid, as efficacious as possible. Governments, State and Federal, are seeking advice on how they should proceed and the Commonwealth government has made some $20 million in funding available to enable the field testing of the key competencies and the planning of the teacher training and development required to proceed.

There has been an industry validation of the key competencies and the field testing is the first time that the schooling sector will be able to test the applicability of the key competencies and their across-the-curriculum development, assessment and reporting. There has been considerable debate arising from the origins of the key competencies and their place in valued schooling education. There has been debate about what has not been included and on the demands on the workforce. There has been little consideration of the 'do-ability' of the proposed scenario in schools. The field testing of the key competencies is something that schools should support and undertake as a way of ensuring that the whole thing is 'do-able' and as a means of broadening, at school and whole profession level, the understanding of the competencies and their usefulness to our students.

An Impatience with the Rate, Costs and Extent of Educational Change

Among politicians in particular, and among some community leaders, there are signs of impatience: we school educators are seen to be slow to change and resistant to real change. Some in the world of training/work accuse us of 'fancy dancing'. As educators we pick up ideas that are suggested to us like partners at a dance. We get the feel of our new partner and the nature of the idea and then we dance with it, incorporating its simple steps into ours, creating something apparently new and dancing, dancing, dancing until the idea is tired and the partner is dead in our arms. We are accused of it in South Australia in relation to the Certificate of Education: it is no more broadly equitable, some have said, than that which it replaced. I have heard the same said about the Victorian and Tasmanian Certificates, about schools-industry links, about meeting the needs of the gifted and talented, about incorporating the needs of workforce oriented students into our schooling system. Our post-compulsory curriculum and its delivery remain dominated by meeting the needs of those who seek to enter higher education.

It is argued that, not only do we take ideas and reduce them to something familiar and unchanged, but we take too long to do so. Our familiar timelines are no longer viable. This means that we have to focus early so that we can be certain about the changes we undertake. For too long education administrators have pursued change for its own sake, seeing any change as a means of development and have exhausted schools and our systems by pursuing change that is superficial and uncoordinated. We may have created a situation where curriculum change can be achieved only by changing the assessment demands: look at the growth of the authority of the assessment and credentialing authorities in the past five years. We may have created also a situation where those who are impatient with us will seize the change agenda and, with a crash through or crash mentality, create a whirlwind of structural change that will achieve short term ends but which wrench the delicate fabric of good education.

A Focus on Work and Work Restructuring in Education

There is a clear belief by many political and industry leaders, employers and unionists that education has focused too exclusively on the needs of those students seeking to enter higher education. There has been a move within education, within schooling over the past ten years to redress the lack of emphasis given to linking education with work. Career and work education programs have been introduced and schools-industry links have been developed. We have not kept up with changes in the workplace, however. Further, like most other countries in the western world, we have not adequately addressed the role of vocational education within a comprehensive educational structure where all can aspire to higher education whatever their class, gender or cultural background.

Finn, Mayer and Carmichael have provided structures and advice on how a vocational orientation to post-compulsory schooling might be addressed within the

education-training-work agenda. The three reports are complementary though two, Finn and Mayer, were commissioned by the Australian Education Council (AEC) and the other through the National Board of Employment, Education and Training (NBEET). Carmichael, also, is not as concerned with the reconstruction of senior secondary schooling as he is with the construction of pathways and accreditation alternatives within the schooling-training-work nexus.

The Mayer report is cleverly entitled *Putting General Education to Work*; 'cleverly' because the title suggests a reorientation of some of the purposes of general education, rather than a reconstruction of its nature. The report does not seek to change what it describes as the 'Foundation knowledge, skills and understandings' inherent in schooling, and currently being re-described through the national statements and profiles. It suggests a warp and weft view of learning that builds on a world that is familiar to schools; that students can be learning more than one thing at a time. It also ensures that the key competencies are available to all students by distinguishing them from vocationally specific competencies.

Teachers respond well to the list of competencies as described by Mayer (see the paper by Ann Borthwick in this volume). They are suspicious of its origins; wary of where assessing and reporting these competencies may take them; they are concerned about the impact on their workloads; but they recognise the immediate value of what's there. Some criticism has been generated by 'what's not there', though the report acknowledges that the list is designed to be managable and focused. Those that seek to increase the list need to consider the impact on schools of the assessment, recording and reporting task. It has not been established yet that the current list is managable. Field testing which is to commence shortly should provide some guidance on this.

The list that is there does not subvert the aims of education or make education instrumentalist. These are useful skills and knowledges to obtain are they not? Most of them are in operation in some form in each classroom each day. In fact, they will provide a very useful credential to bolster post-compulsory assessment, particularly for students who have trouble with more traditional content-based assessment.

What is particularly useful about the collection of competencies is that they are presented as skills and knowledge in operation. They are highlighted as student attributes and should to be developed. There are rare teachers who embark on teaching self-organisation and management, team working skills, communication skills and so on within the curriculum content of their teaching. Yet before the release of the Mayer discussion papers, there was little if any systemic recognition of the importance of teaching these skills.

Considerable support will be required and is being provided. The technical difficulties of assessing the competencies across the curriculum cannot be trivialised. The training and development needs of teachers and the public information campaign required to educate employers and families will need to be extensive. It will need to be common across Australia but amenable to particular State and sector needs. The

systemic development will extend our understanding of educational management and assessment to new frontiers.

Field Testing the Key Competencies

Whilst each State is likely to organise some formal field testing of the key competencies, all schools and all teachers ought to be encouraged to examine the implications of, and actions required to support, implementation. We, as a profession, need a thorough grass roots understanding of the teaching-learning-assessment issues in order to provide advice to governments on how to proceed.

Some Parameters for Field Testing in South Australia

There are some particular initiatives and contextual features in South Australia that affect the nature and shape of field testing. The introduction of the South Australian Certificate of Education (SACE) occurred last year in Year 11 and continues into Year 12 this year. It has always been accepted that the implementation of the key competencies must be within the context of the SACE and must take account of the changes to school organisation and teacher workload that occurred as a result of the SACE. It is frequently argued that schools cannot cope with additional assessment and reporting tasks at Years 11 and 12 and that if the key competencies are introduced it must be within a context of either tagging existing assessment requirements for two tasks or of reducing other assessment and reporting tasks to accommodate additional Mayer-based tasks.

The SACE was designed to achieve some cross-curriculum purposes and these need to be considered in relation to the key competencies. The SACE incorporates the following skills into its curriculum design as appropriate:

- communication and language skills
- numeracy skills
- problem solving and decision making skills
- social skills
- technological skills
- the ability to reason
- the ability to exercise initiative
- an understanding of the world of work.

In two cases the SACE assesses and reports on these initiatives. The Writing-Based Literacy Assessment reports on student writing across the curriculum of the SACE. Students may also choose to have achievement of Work Studies recorded on their certificate and this achievement can be fulfilled in a variety of cross-curriculum ways, including the undertaking of work experience.

The K-10 curriculum in South Australian public schools is shaped by the document *Educating for the 21st Century* which describes the curriculum requirements for schools. It lists the required areas of study (English, Mathematics, the Arts, etc) which

were largely adopted as the model for national curriculum development and also describes Essential Skills and Understandings (ESUs) that occur across the curriculum. The ESUs are embedded in the curriculum as described through the Attainment Levels and students must gain these skills for effective participation in society. The ESUs are:

- communication
- social
- planning and design
- information
- environmental
- mathematical
- health and safety
- technological
- work.

Schools are not required at this stage to report on the ESUs but they are seeking support in ensuring that they are developing the ESUs and that they can identify criteria that will enable assessment of them. A few schools have organised their curriculum around these skills and the recently released report on Junior Secondary education recommends that the list be reworked in the light of the key competencies and that it could be used as a curriculum organiser for Years 6-9. In addition schools are becoming increasingly aware that the ESUs and the overlapping key competencies are able to act as curriculum bonding agents across the K-10 curriculum. The achievement of them by students could ensure a satisfactory entry to the methodologies of the SACE beyond Year 10.

A clear focus of any further developments of the key competencies will be to examine their relationship to the cross-curriculum requirements already operating in South Australia. The key competencies provide a model for reworking some of the ESUs but some (for example, environmental) will remain additional. The current attempt to look at the match between South Australian requirements and key competencies is looking only at curriculum design and assessment across the curriculum. The question of levels of achievement is not being addressed at this stage.

Proposed Formal Field Testing in South Australia

In South Australia there is a State key competencies committee which will oversee agreed formal field testing. This committee has representatives from each schooling sector, from the assessment authority, from TAFE, employers and unions and from higher education. It will focus initially on some of the key competencies, on their recognition within current teaching-learning structures, and on issues of their development. Our argument is that if they can be taught and learned then they can be assessed. We have not had notable successes in cross-curriculum development so the task for their committee will not be easy.

The committee has been asked by the State Minister to provide advice on imple-

mentation of the key competencies. At the time of writing the committee has not forwarded its final report to the Minister and no formal field testing has commenced. The directions that the committee is heading towards in its discussions would support field testing in schools at a formal level that would examine the following issues:

- links between the key competencies and other South Australian cross-curriculum initiatives (the ESUs of *Educating for the 21st Century* and the cross-curriculum intentions of the SACE)
- strategies for consolidation of those complementary initiatives
- curriculum design and teaching methodologies that will support the achievement of the key competencies and the other integrated competencies
- assessment and reporting at the school level
- the nature and extent of training and development needs
- school management and organisation support.

Field testing in schools, it is suggested, should focus on two sets of schools. The first is a set of schools (public, Catholic, independent) where the focus will be on the competencies in a K-12 curriculum framework and the teaching (including methodologies, programming, assessment and reporting) required to develop students' attainments of the competencies. A significant emphasis of this project will be on the identification of competencies teaching in the Years 8-10 curriculum and on the level of curriculum and classroom teaching change required to ensure that the competencies are embedded in pre-SACE learning (K-10).

The second set of schools are those schools which have been designated and have already received funding as Australian Vocational Certificate Training Schools (AVCTS) (Carmichaelg, architects of, the most significant changes to education that will) pilot projects. In these pilot schools, the need to incorporate key competencies into the Australian Standards Framework, the National Training Board's vocational levels, is added to the experimental brew.

At the same time, complementary activities have been suggested for the system to support the field testing and possible implementation of the key competencies. It will be essential to conduct an audit of the curriculum to ascertain whether the competencies are already embedded in curriculum design in the SACE and in the K-10 nationally developed Statements and Profiles (the National Curriculum). The audit will inform the schools' field testing and will identify issues and developments requiring the attention of field-testing schools. These will include aspects of:

- curriculum design
- assessment
- teacher workload
- teacher development.

Another valuable systemic activity, it is suggested by the committee, would be the development of a resource for teachers, a 'bank' of General Assessment Tasks (GATS). The SACE practice of developing assessment plans provides a readymade

means of tagging the presence of the key competencies where it is clear that they are included in the assessment tasks. It may be possible to develop a bank of general assessment tasks related either to existing subjects or to the nationally developed profiles, which could be used by teachers to assess competencies within their subject. Such a bank could be added to over time and become a very significant time-saving resource for teachers.

The committee has also considered key competency field testing proposals for the training sector in relation to both pilots in specific vocational training programs, and to more general employment readiness.

Informal Field Testing

As well as formal field testing, a host of individual teachers, with the support of principals and advisers and a desire to improve the access of their students to work, have been playing with the key competencies and their potential application in schools. This experimentation has developed familiarisation and preparation for the future; it has not been coordinated. It has taken a variety of forms and has generally followed school or cluster-based information sessions on the key competencies. These efforts have been undertaken by enthusiasts.

One primary school analysed teachers' work in the school against each of the key competencies. It was argued by the principal that this would help them understand the employment relatedness of the key competencies as well as reflecting on their practice in relation to current work practices. It was a small exercise and generated intentions and strategies for staff to increase their work in teams to produce outcomes.

A group of Arts educators has used teaching-learning experiences in the Arts at junior secondary level to demonstrate the sorts of tasks that can lead to the fulfilment of each of the key competencies. The work clearly demonstrates that each of the competencies can be developed through an Arts teaching program in Years 7-10 in ways that enhance and do not distort the curriculum. The Arts educators argue with enthusiasm that the importance of the Arts in delivering work related competencies as well as socially useful aesthetic understandings entitles them to an increased share of the curriculum cake!

A cluster of junior primary and primary schools has focused on the ESUs and their links with the key competencies. They have sought to establish criteria (using the support materials for both the competencies and the ESUs) for teachers to assess progress of their students. They have found that whilst the competencies can be identified in their current practice, they occur in haphazard and uncoordinated ways and there is no clear breaking down of the competencies into elements that can be developed or skills that can be sequenced. This is now being done for some of the competencies. Where clear criteria can be established, assessment is relatively quick and easy. The emphasis has been on the competency per se and it has become clear, from these schools' work, that the identification of levels using the Mayer report criteria is difficult.

A teacher of Humanities has planned her Year 11 semester course in Australian Studies incorporating some of the key competencies and the defined SACE assessment criteria. The planning has been more complex, but she has not fundamentally changed her course from last year. Her semester concentrates on 'Immigration' and follows the SACE curriculum requirements. This semester unit focuses on post-war Australian immigration patterns and the nature of Australia's multicultural society. As with any teaching-learning program, the content and learning processes are described. In this case this involves students learning about the patterns of immigration; understanding statistics associated with immigration; relating Australian immigration to world events; observing and describing the effects of immigration on the composition and nature of Australian society; engaging with debate about the relationships between immigration and economic growth; and researching ultural diversity. As well as learning through teacher exposition, students will be required to read and discuss text-based information, work with computerised data bases to gain and analyse statistical information, conduct research, observe, record, interview members of their local community, and undertake both a group and individual (task) assignment.

The elements of the competencies are woven across the teaching-learning program; the competencies 'weft' across the 'warp' of content and knowledge. Having familiarised herself with the competencies, the teacher saw many links between the learning resulting from the semester unit and the development of the competencies. She was aware, however, of the limited time available in a semester course and whilst she will explain to her students how the course will assist in the development of all the key competencies, she will be concentrating on the developing and reporting formally on:

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- using technology.

The teacher is required to provide the Senior Secondary Assessment Board of South Australia (SSABSA) and the students with an Assessment Plan on which she will indicate the tasks that will be used for assessing and reporting on the competencies. Each of the assessment tasks will be used to assess learning and performance in relation to the unit on Australian immigration as well as on the competencies and their levels. There is not a separate assessment task for each competency or for each component of the Australian Studies course. The teacher has planned each assessment task carefully so that the dual range of purposes can be served.

At the same time, the teacher has explained to the students that elements of the key competencies will be developed through the teaching-learning program. A major assessment task for the unit is the presentation of an individual report linking the experiences of local people who have migrated to Australia with the historical, economic and social perspectives derived through previous class work. The students will be required to demonstrate their understanding of the knowledge of information gained

in these areas of study, their written analysis skills, and their ability to conceptualise the national issues in a local and personal setting. Through interviewing members of their local community who have migrated to Australia, through the development of questions for those interviews, through the recording and analysis of results and through the presentation of the analysis in an integrated report form, the students will also be developing competencies in the criteria for several of the key competencies, such as:

• Application of access and retrieval techniques and principles • Analysis and organisation of information • Accommodation of social, cultural and ethical dimensions	Collecting, Analysing and Organising Information
• Application of the principles of communication • Expression of ideas and information • Accommodation of social, cultural and ethical dimensions	Communicating Ideas and Information
• Application of principles of effective work organisation • Establishment of priorities, sequence and objectives • Accommodation of social, cultural and ethical dimensions	Planning and Organising Activities

Their performance in each of those competencies can be matched against the criteria for each level and assessment of the Performance Level in each of these competencies can be made and reported.

In examining performance in the key competencies, individual responses to this assignment can be evaluated against all the criteria for each Performance Level. The teacher maintains a grid where student performance is assessed and recorded against each of the Performance Level criteria and in this way is able to establish, across the assessment tasks, each student's level in each of the competencies identified by the teacher as being a component of the learning and assessment program of this Australian Studies unit. She has been able to do this without changing the content of the course or adding assessment tasks. I have reported on this in some detail to give a concrete case which shows what can be done within a subject area.

A Mathematics teacher, dissatisfied with current assessment and reporting of performance in his Year 8 class, has worked with the principal and advisers to incorporate a dimension of the key competencies or, as he put it, 'introducing interest and opportunity to develop work place skills'. His main purpose was to enrich the reporting of Mathematics for which he has established clear criteria, but he also wanted to develop work skills and assess and report them meaningfully to parents.

He has taken the key competencies planning and organising activities and has broken these down into sub-headings that his students and their parents feel comfortable with (for example, Organisation of Time, Planning, Completion of tasks) and is now developing criteria, that he can tick on a report form, both as a teaching assessment tool with individual students and for sending home to parents. He believes that this will not create significant additional work though his methodology is significantly different from last year. The principal is considering the impact of asking all

Year 8 teachers to report against the work skills criteria or of creating additional criteria to cover more of the key competencies and assign them out across faculties over years. All acknowledge the value of students having these skills before they undertake SACE studies.

The drop-out rate of students undertaking the SACE, and survey work which suggests that students do not believe they have been well prepared for SACE studies in terms of work skills/habits, has emphasised the importance of all students gaining self-management skills, information management skills, technological skills and high levels of literacy and numeracy. The key competencies and the ESUs have provided the focus for considering ways of developing these skills. The SACE is too late a place to start developing the competencies and it provides a problematic base for assessment and reporting. For these reasons, the teaching and learning of competencies may have particular appeal in the junior high school.

The audit of the SACE curriculum as proposed will provide further enlightenment on the difficulties that arise when student choice becomes more diverse. The K-10 curriculum in South Australia has some choice within the requirement that each of the required areas of the curriculum are studied. The post-compulsory SACE pattern is much more complex in its requirements. If all students are to have access to the key competencies then their chosen SACE course must deliver all the competencies and allow for improvement. This is not an insurmountable problem in the SACE given that all students must complete English Stage 1, a unit of Mathematics Stage 1 and Australian Studies, and that there are required balances of Arts/Humanities Studies and Maths/Science/Technology subjects. The counselling and recording ramifications are, however, very complex.

Summary and Coda on Assessment

In South Australia, and in most other States, education systems have a commitment to developing cross-curriculum skills and understandings. In South Australia these include the ESUs of *Education for the 21st Century*, such skills and understandings as 'communication', 'planning and design', 'environmental', 'health and safety', 'mathematical' and so on. Many of these are very similar to the key competencies. It has become evident that we need significant developments in assessment techniques and technologies if we are to assess, and record, the extent and growth of these competencies in our students, if we are to report their progress in these areas for parents and if we are to inform systemic planning.

The key competencies developments will inform this process of developing the assessment and recording technology and will provide financial support for developing and introducing cross-curriculum and 'across teachers' assessment. This will be an exportable technology to international markets tiring of standardised test assignments, their limitations and unreliability. Several computerised assessment and record keeping programs are being developed in Australia both by education departments and private

consultants such as Ashenden Milligan. Australia, through the involvement of its schools, could be at the forefront of the development of educationally sound, and marketable, 'across curriculum-across teachers' assessment and recording systems.

These are some of the agenda and some of the forces at work to create change. How we as a group deal with all the changes, including the key competencies is something we must resolve quickly. We have some alternatives. We can cry into our buckets, but that is unlikely to be profitable in the long run! We can seek to increase our understanding of the issues so that schools can take charge. The implementation of these initiatives will then be useful for education and for the society in which we seek to live. It needs the leadership of teachers.

In order to do that we may need to develop attitudes to the initiatives that will assist us and our schools to extract the positives. We also need to consider the constants of good education within our schools to acknowledge and support them. These constants are valued by our community but are often taken for granted by our schools. They include the recognition of good teaching and good teachers. Good teaching is at the heart of good learning and it will always be recognised by students and parents and always valued. The nature of parenthood and the aspirations of parents are also constants in education despite changes in family structure. The need for duty of care for children in compulsory schooling and beyond, and the need for attendance and participation, are ordinary but essential ingredients of learning, managed by schools.

The changes that are before us will allow us to create within our community a better curriculum, one via the nationally developed Statements and Profiles, that is coherent K-12, and that has connections with post-school options in work, training or higher education. Within schooling we can work as a K-12 profession in debate about directions and with a sense of common-ness about our purpose and the desired outcomes for our students.

The Mayer key competencies provide us with a basis and, it would seem, resources, to explore the weft and warp nature of learning, curriculum structure and assessment. What competencies do we want our community to have? What is the nature of literacy in our world? What is the level of literacy required for success within and beyond school? What are the work skills and knowledge that our students will need? And how do we teach that stuff?

We also have a chance, it seems to me, to reassure teachers that the profession of teaching is highly regarded and will be enhanced through the acknowledgement of the training and expertise that is inherent in successfully developing and implementing these initiatives.

From these things we should draw strength and encouragement and a boldness to proceed.

* * *

Training Reform and Key Competencies

Colin Ducker

Introduction

In Australia, as in most industrialised western countries, formal educational preparation for a vocation takes many and varied forms. Industries and businesses provide training for their employees, private organisations conduct training on a commercial basis, and local, State and Territory and federal governments provide training through publicly funded institutions and programs. Professional organisations, community providers and licensing authorities also provide vocational preparation. Some of it is initial preparation and some is part of the ongoing development of knowledge and skills for the workplace. Together, these constitute vocational education and training.

Until very recently, the component of vocational education and training provided through the publicly funded systems, particularly State and Territory Technical and Further Education (TAFE) systems, has received the most widespread recognition. It remains the single most dominant provider. The large amount of occupational training that has taken place non-formally and/or on-the-job rarely has been afforded equivalent formal recognition or certification.

In the period since the mid 1980s reform in vocational education and training has been gathering momentum. It is bringing substantial and enduring change to the nature and organisation of vocational education and training in Australia. Despite claims of bewilderment about the pace and the profusion of change, there is emerging a stronger 'training culture'. There is greater conviction about the role vocational education and training plays in addressing economic, social and industrial needs.

A significant part of the training reform agenda is being directed at the form and focus of vocational education and training for young people in the age range 15 to 19 years. This overlaps with developments in the post-compulsory education provided in the later years of secondary schooling. From this flurry of attention has arisen the notion of key competencies. At a recent meeting the Australian Education Council resolved that the key competencies are:

> competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. Key competencies are generic in that they apply to work generally rather than being specific to work in particular occupations or industries. This characteristic means that the key competencies are not only essential for effective participation in work but are also essential for further education and in adult life more generally (Minutes of the 68th meeting, Auckland, 22 September 1992).

The work on the key competencies was commenced in the Finn (AEC 1991) and Mayer (AEC/MOVEET 1992) committees. Further developmental work is proceeding, with a projected implementation date of 1995. This work is seen as relevant to both school and training sectors. Like many of the initiatives in vocational education and training, the development of the key competencies is a new venture. The research and previous knowledge available to inform the development of key competencies is quite meagre. Although the literature of education is dotted with attempts to distil knowledge and skills which are 'generic', 'core' or 'foundation', very little has been attempted with the decidedly national focus, the strong cooperation between the training and general education sectors, and the current notions of competence and employment-relatedness which accompany the key competencies. Thus, development is taking an exploratory and evolutionary course which must be adjusted as insights expand. Amongst the several countries taking an approach based on similar assumptions, Australia is very much at the leading edge.

The key competencies are of considerable significance to vocational education and training, particularly entry-level training. Vocational education and training is a primary route to the knowledge, skills and understandings required for competent performance in work. Since the key competencies were derived, at least in part, from the workplace they will provide valuable input to the development of training curricula. Also, key competencies will provide a thread which is anchored in secondary schooling, runs through vocational education and training and ties into both work and adult life. And key competencies will be incorporated into national industry competency standards which, in turn, are forming a significant relationship with the development of vocational education and training curriculum.

The Emerging Context

Vocational education and training is in a condition of change and development and it is into this moving context that key competencies will be placed. One aspect of the current reforms is that perceptions about vocational education and training are becoming less straitjacketed. For example, systematic processes are being established for recognising the prior learning of individuals, regardless of the organisations involved or the formality of the learning settings. There is a strengthening of the focus on the knowledge and skills that the individual brings to the situation, and a reframing of the

beliefs surrounding the routes by which such knowledge and skills may be acquired. The key competencies initiative also focuses on competencies that the individual brings to the setting and will be well placed to be included in this scheme.

At a different level, a framework is being established which will allow a greater range of training programs to be recognised. Under the National Framework for the Recognition of Training (NFROT) State and Territory, institutional and organisational boundaries will become less obstructive, allowing the qualities of the training programs to be the primary determinant of the recognition to be afforded to any particular program. This reflects an important broadening of views and will lead to a multiplicity of pathways to recognised knowledge and skills.

The NFROT agreement is an indicator of the considerable growth in the conviction that vocational education and training would benefit from greater national consistency. This is a second aspect of the overall training reform agenda. In this case, NFROT now provides a more coherent basis upon which to develop national consistency in the recognition of accredited courses, training programs, training providers, competencies and prior learning of individuals. Another indicator of the drive for national consistency is the agreement reached to establish the Australian Council for Training Curriculum (ACTRAC). This committee is fostering efforts to develop quality training curricula which have national applicability. An emphasis is being placed on collaboration between training providers and on making the outcomes more widely available. More recently, the Australian National Training Authority (ANTA) was established. It will enhance the ability of vocational education and training to address issues of national significance in more coherent and deliberate ways. In most of these developments the term 'national consistency' means compatibility, adherence to the same set of principles, and the formation of linkages. It does not signify the imposition of a uniform set of practices. Nor does it seek sameness in the regimen of vocational education and training across Australia.

Vocational education and training has only a limited experience of acting in nationally consistent ways, and of focusing on issues of national significance. This is not surprising given that its origins are in disparate and localised settings. Perhaps the most prominent earlier example of a form of national consistency emerged from technical education in the era commonly known as the 'Kangan era'. The Kangan Report of 1974 gave rise to an increased emphasis on a selection of social objectives and issues, and involved 'the adoption of a new philosophy of human values and a system of concepts' such as 'meeting the needs of the individual as a whole person' (Kangan 1979, 20). It became known as the 'Kangan philosophy', and served to guide the evolution from technical education to TAFE. The responses which began with the Kangan assumptions about the nature and role of vocational education and training took on a strong degree of similarity across the several TAFE systems, and it is in this sense that some semblance of national consistency was achieved. The current drive for national consistency is much more directed. The key competencies are part of this new

approach which is not only nationally consistent within vocational education and training but also with the ways in which key competencies are implemented in post-compulsory education in schools.

A third aspect of the training reforms is that more major actors are able to provide systematic and considered input to developments which affect vocational education and training. The key competencies are a reflection of this movement, for they have been developed with input not only from industry but from vocational education and training, general education and the community. They were derived from a study of what happens in employment, in adult life, in the community, in the home, in training and in schools.

At a broader level, there exists now a substantial network of Industry Training Advisory Bodies (ITABs). They have considerable responsibility for the development of training in the several industry sectors, and many of them are coupling these efforts with employment strategies. Whilst TAFE systems have long had good consultative arrangements with industry, especially at the level of course development, typically these have served quite localised purposes. The latest developments are occurring at the national level or, at least, at the State level. It is from these ITABs that most of the Competency Standards Bodies (CSBs) are drawn for the purpose of developing and maintaining national industry competency standards. In turn, these standards will be able to provide input to the development of training curricula. Industry representatives also are now more prominent in the committees established to undertake substantial investigations into aspects of vocational education and training. Names such as Deveson, Finn and Mayer are among the most recent.

The converse also is true — that vocational education and training is much better placed to provide input to other areas, such as development within industry and links with schools. There are numerous instances of TAFE institutions undertaking development projects within industry or on behalf of industry, and of training sections being brought into the processes of strategic policy development in organisations. Some of the most significant examples come from the areas of social justice and equity. Considerable progress has been made by national TAFE-driven projects designed to develop approaches to these issues in ways which make sense to those who implement them on the factory floor. There are also numerous examples of TAFE making links with schools and of schools making links with training in business and industry.

Whilst most of these reforms may appear to be underpinned by sheer common sense, to understand the effort and commitment required to establish and maintain them it is necessary to appreciate some of the factors which impinge on the processes of change. One such factor involves the extent to which vocational education and training has been ignored in past approaches to social, economic and industrial issues. A large part of the traditional response to the need for skilled labour, for example, has been to recruit people with skills from overseas sources. Thus, in the 1980s, when economic realities emerged which, hitherto, had been disguised by the appearance of a modern industrialised economy, Australia faced a structural base which was underdeveloped and un-

sophisticated in many of its key constituents — skills and training, technological change and innovation, management, and industrial relations (Costa and Duffy 1991, 73). Gradually this situation is being replaced with the capacity to generate the skills required through a more coherent approach to Australian vocational education and training.

It is also important to appreciate that the origins of vocational education and training are in localised settings. These have given rise to a variety of forms of organisation which are not necessarily compatible with the directions of the current reforms. For example, the traditional organisational structures of many of the TAFE systems evolved from the earlier bonding of TAFE —then technical education — with regionalised, general education systems established by State government departments. Thus administrative arrangements such as timetables and classrooms, terminology such as 'teacher' and 'subject', curriculum and instructional formulations which mirror the traditional 'disciplines approach', qualifications governed by the length of time served and fixed course patterns have been prevalent in the TAFE sector. The current reforms, which are characterised by approaches such as competency-based training and the establishment of flexible training pathways, are calling into question the appropriateness of many of these long-standing arrangements.

The Training Curriculum

One aspect of vocational education and training which is receiving particular attention is the training curriculum, particularly as it adjusts to the current notions of competency-based training. There are many views about what constitutes the training curriculum and about the models which might guide the development of training curricula (1). One view is that the training curriculum derives directly from the job or tasks to be learnt. A range of techniques, such as Task Analysis and Training Decision Systems, has been developed to increase the rigour and validity with which jobs and tasks are analysed for input to curriculum design and development. In this sense, the training curriculum is a representation of the elements of the task and, often, is arranged for learning according to the task sequences.

There are situations in which the acquisition of a limited and specific set of skills is of paramount importance but the majority of vocational education and training curricula serve a much wider range of purposes. The design of the training curriculum that takes into account views about the nature of the learning process, and views about assessment and reporting are examples. Curriculum design is also influenced by the need to accommodate social issues, such as counteracting gender biases, promoting equity and providing for the needs of an individual as a member of a community or a family. It takes into account health and safety issues as well as legislative and licensing requirements. The training curriculum is influenced not only by the needs of the current workplace but also by visions about the emerging patterns of work. That is, the training curriculum needs to take on elements of a future orientation.

Key competencies also will be an input to training curriculum, particularly as they

portray the employment-related competencies essential for young people in their preparation for work. The term 'employment-related' is used in this context in a way which is not synonymous with 'job' or 'task'. It does not focus solely on the competencies required to perform in quite specific skills or in limited domains of knowledge. Rather, it is a bigger notion chosen to encapsulate the many attributes which an individual needs for effective participation in work and the emerging patterns of work.

In the training sector, training providers are already working with a competency-based approach to 'job' and 'task' learning. The experience training providers are gaining with the current competency-based approach means that they will be well placed to incorporate the standards-based key competencies. Training providers are rapidly gaining facility with the notions of competence and standards.

However, in the early stages of the introduction of competency-based training, there has been a tendency for 'competence' to be interpreted in a relatively narrow way. This has led to a somewhat task-based and segmented training curriculum. As experience is growing, the notion of competence is widening. The small and individualised segments are being replaced by larger, more meaningful units which reflect more closely the integrated nature of workplace practice.

An indicator of this is provided by the contrast between current training curricula and those of the 1970s when 'behavioural objectives' and the Bloom taxonomy were brought to bear on the construction of the training curriculum. For example, it was possible to find, in the older training curriculum for a skilled trade, up to 200 'behaviourally-stated objectives', many of which could be classified at the two lowest levels of the taxonomy. Often these objectives related to small elements of a task, and this led to assessment processes which focused on those small elements. This situation has shifted considerably, and the latest training curricula have moved to much larger units of analysis (2). The accompanying assessment is based on the larger units and focuses more intensely on higher order attributes such as the ability to integrate, to manage, to diagnose, and to evaluate. In colloquial language, it can now focus more on 'getting your act together, showing some nous and getting the job done right'.

The latest definition of competence provided by the National Training Board (NTB) also is an indicator of this movement:

> This is a broad concept of competency in that all aspects of work performance, not only narrow task skills, are included. It encompasses:
> — the requirement to perform individual tasks (task skills);
> — the requirement to manage a number of different tasks within the job (task management skills);
> — the requirement to respond to irregularities and breakdown in routine (contingency management skills);
> — the requirement to deal with the responsibilities and expectations of work environment (job/role environment skills), including working with others. (NTB 1992, 29)

The key competencies align more closely with these notions of competence than with the narrow task-based ideas of the past. Indeed, the key competencies are well placed to foster the growth towards broader notions of competence.

The key competencies present some significant challenges to the training curriculum not only in the area of training curriculum design but also in related areas such as assessment. A fundamental tenet of the key competencies concept is that young people should be able to develop across all key competencies and Performance Levels, regardless of the training pathway they take. This serves social purposes such as creating career options for young people and providing opportunities for them to develop to their full potential. A major tasks for designers of training curricula will be to establish a standards-based assessment scheme in which young people can display their abilities. In particular, there will be a need for assessment tasks which allow judgements to be made about competence in an externally framed set of standards with three levels of performance. This carries with it challenges to clarify the meaning of 'competent performance' and to apply it to each level of performance. This is very different to setting a test on a domain of knowledge or skills, applying it to a group of young people, and using the proportion of the knowledge or skills they have acquired to determine grades on a three point scale.

Industry Standards

The key competencies have a number of potential benefits for industry. Some of these relate to the work being undertaken to develop industry competency standards. Some CSBs already have found themselves drawn to the notion of generic or core competencies. The most prevalent of these are gathered under titles such as computation, literacy, problem solving and communication. The task of distilling and refining competencies which are generic — in that they apply to work generally rather than being specific to work in particular occupations — was the primary task of the Mayer Committee. The key competencies are deemed to be essential for all young people in their preparation for employment. In this sense key competencies form a prefabricated framework for the development of the generic competencies that CSBs have been seeking. The key competencies, like the industry competency standards themselves (those relative to specific kinds of employment), are still under development. There is still considerable validation and benchmarking to be completed. As this occurs the key competencies will emerge in forms which are more complete and more easily accessible to those involved in the development of industry competency standards.

Further, the key competencies will assist CSBs to move towards more generalised notions of competence. In the early attempts to produce industry competency standards there was an understandable tendency to focus on highly specific and clearly observable tasks. This was quite a narrow interpretation of the notion of competence. However, in a way which parallels the growth in training curricula, there are signs that

the later standards are capturing broader and somewhat more sophisticated competencies. It is here that the key competencies again can make some contribution, for, as the Mayer Report states, they have been predicated on:

> a definition of competence which recognises that performance is underpinned not only by skill but also by knowledge and understanding, and that competence involves both the ability to perform in a given context and the capacity to transfer knowledge and skills to new tasks and situations.

Amongst other benefits to industry of the key competencies are those which relate to communication with general education and vocational education and training. The key competencies will provide a mechanism through which industry may describe to general education the sorts of learning which it finds valuable in ways other than through the school subjects. That is, the key competencies will foster expression of needs beyond the popular, but often aoristic, 'more Maths and English'. Industry will be able to communicate to schools the importance it places on being able to work with others or in teams, or on being able to collect, analyse and organise information. Schools, which hitherto have worked hard to provide this information through descriptive statements on report cards, will be able to respond under a more coherent framework.

Industry may also find that young people will enter employment with greater facility to put their general education to work. This does not mean that young people will be studying more technical or 'vocational' subjects. It means that they will be more able to bring to bear on the work setting the knowledge and skills they have developed in school subjects, including subjects such as Mathematics, Science, Art and English. If young people entering employment are aware that they have abilities in the areas of solving problems, using mathematical techniques or planning and organising activities, they will be more likely to value them and use them in the work setting and in the other settings of adult life.

A Concluding Remark

One of the most important aspects of the movement to key competencies, and of most of the other reforms being undertaken in vocational education and training, is that they are new. In general, no other country is further advanced than Australia. Whilst it is difficult to live with uncertainty, it is a necessity given the evolutionary way in which these innovations and reforms must occur. What is paramount is that the experiences of today nurture growth for tomorrow.

Notes

1. See Kinsman (1992) for a stimulating treatment of competency-based training as a curriculum model.
2. See, for example, the training curricula emerging from the School of Applied Arts and Design at the Canberra Institute of Technology.

References

Australian Education Council (1991) *Young People's Participation in Post-Compulsory Education and Training* (Finn). AGPS, Canberra.

Australian Education Council and Ministers for Vocational Education Employment and Training (1992) *Putting General Education to Work: The Key Competencies Report* (Mayer). Melbourne.

Costa, M and Duffy, M (1991) *Labor, Prosperity and the Nineties: Beyond the Bonsai Economy*. Federation Press, Sydney.

Kangan, M (1979) A Comment on 'TAFE in Australia'. In D McKenzie and C Wilkins, *The TAFE Papers*. MacMillan, Melbourne.

Kinsman, M (1992) Competency-Based Education in TAFE. *The Australian TAFE Teacher*, 26(4) 49-61.

National Training Board (1992) *National Competency Standards Policy and Guidelines* (Second Edition). National Training Board, Canberra.

Competency-Based Vocational Education and Training

Queuing for TAFE not INXS: Vocational Education and Training in the Nineties

Susan Holland

The pathways now available to our young people in the post-compulsory years are more diverse and better articulated than in earlier decades. However, there is significant misunderstanding in the community generally about the nature of vocational education and training, particularly those aspects that are being incorporated into the post-compulsory school curriculum. This misunderstanding includes considerable confusion about the curriculum provision, assessment procedures and the role of the teacher.

The purpose of this paper is to clarify some of this confusion by providing insights into the interface with the vocational education and training sector of current curriculum and assessment practices in the post-compulsory schooling sector. The paper is in three parts. First I provide some context in terms of the national reform agenda and the changing nature of vocational education and training. In the second section, in the light of the so-called convergence of general and vocational education, I raise the question of the appropriate way to characterise the vocational aspect of the post-compulsory curriculum in the nineties. Finally, after outlining the basis for the development of generic, employment-related competencies (Mayer 1992), I consider what this might mean for industry by describing some work in progress which is exploring relationships between generic and vocational competencies.

Context

The title of the paper is taken from a recent caption on a front page story in the mainstream daily press (*Sydney Morning Herald*, 2 February 1993) during the recent first semester enrolment period of the New South Wales TAFE Commission. The article described queues of young people seeking entry to the travel industry through vocational training. Leaving aside the admissions system questions which the article raises, the caption neatly captures a significant cultural shift in our attitudes and values towards vocational education and training. Young people have the vision to make

careful post-school choices, which are specifically targeted towards growth industries such as travel. They are not mindlessly diverted by 'pop' culture. Once upon a time the school leaver pattern was either to enter a trade (boys only), or find a job, or, if the school leaver was perceived to be 'academic', to pursue further study at university. Now the pattern is far more mixed, less simple to characterise, and receives careful thought from young people.

In the recession ridden nineties, with alarmingly high rates of youth unemployment, it is hardly surprising, of course, that any story about school leavers is an 'item'. All stories about futures, about what might lie ahead, however full of promise or risk, are of interest. What is significant, however, in terms of changing assumptions about what is of value, is the media's portrayal of the fact that there are options, choices, more than one way to the 'good life'. Attending an INXS concert is undoubtedly an aspect of the good life for some of our youth. For others there are more productive ways to achieve a better future, such as undertaking vocational training.

Unfortunately, as a nation we have not yet reached a point in our history where we have the confidence, maturity or communication skills to debate publicly what we mean and wish for in the future when we speak of aspiring to the 'good life'. In the eighties an attempt at definition was probably unnecessary because so many of our collective practices made the values and hence the meaning transparent: growth, greed and the 'me' generation. Now in the nineties we are perhaps more sober and prudent. Yet, there is still confusion and no real national agreement on these matters. This affects fundamental educational questions such as:

- What are the purposes of compulsory schooling?
- What are the appropriate credentials to award for completion of twelve years of schooling?
- Who should pay for initial education and training post-school?

This is not to say that we have not made some progress in having dialogue about how we wish to shape our collective future. The bicentennial year, for example, was an opportunity for reflection and identification of the limitations of some of the regulatory frameworks of our complex three levels of government. In a nation of our size it is timely, post 1988, to be finally getting serious about national strategic planning and resource allocation. We need some kind of national agenda or agreed framework in place which transcends State and political boundaries, whether for the purposes of planning rail freight, or in order to fund vocational education, or so that we can put in place a national system for the recognition of qualifications.

In the context of vocational education and training much has been written about the so-called 'national reform agenda'. This is an agenda which seeks an agreed framework for education and training across Australia. It is concerned about outcomes in relation to employment and economic recovery. It has been the subject of critique from some academic quarters and a source of passion and pride for others. An example of the former is the article by Porter et al (1992) from the

University of Queensland, while the latter is best represented by the so-called Carmichael Report (1992), a report on entry-level training issued by the Employment and Skills Formation Council which is chaired by Laurie Carmichael, the former ACTU official.

It is true that there are many questions still to be fully resolved arising from the juxtaposition of these and other analyses. However, to imply, as the more extreme critics have done (Pennington 1992), that the current emphasis of this national reform agenda on outcomes and competencies is somehow part of an anti-educational, bureaucratic plot driven by mindless, faceless ideologues is overstating the case entirely.

I take up the specific issue of generic competencies and industry standards in a later section. For the present, a few personal observations gleaned from classrooms, workshops and boardrooms over several years might help to put the critique that the agenda is 'ideological' into perspective:

- There is no time for plots or conspiracy theories in the busy lives of teachers or curriculum designers and policy makers. As professionals accustomed to assessing daily the impact of their decisions on the quality of education and training, they are not unmindful of the dilemmas embedded in their own and others' practices.
- As is the case with all professionals, educationalists take their intellectual work seriously and can deal just as sensibly, if somewhat imperfectly, with theoretical puzzles. Such puzzles arise for them as practical dilemmas, for example, balancing the competing interests of the many groups with a legitimate interest in education and training.
- People engaged in the education and training business are not easily open to manipulation. This is largely because most of them understand and share a passion for the emancipatory nature of the educative process, which they appreciate transcends the specifics of time, institutional structure and teaching/learning mode.

In my experience, although the educationalists have been less visible to date in defining the national agenda than the economists and industrial relations practitioners, they are involved nonetheless through their contribution to the development of industry standards, common or core curriculum, frameworks for recognition and so forth. In this work, educationalists' own passions and concerns are evident. The agenda is being driven then not only by the ideology of economic rationalism, but also by the social imperative of equity, an imperative supported by educationalists, to radically restructure our workplaces, industrial awards and assessment practices. There is a need, for example, to provide greater access to education and training for a broader group of people. There never was a golden time in our history when all young people, irrespective of race, gender or ability had the opportunity to achieve their full potential as learners, or when their skills and experiences developed or acquired outside formal settings were acknowledged and valued. There is a chance now to do something about these things in the national agenda context.

The New Vocationalism

One indicator of the need to re-structure our education and training system is the series of commissioned reports of Finn (1991), Carmichael (1992) and Mayer (1992). Perhaps more important indicators, because they are at the grass-roots, are current efforts of secondary schools and school systems in all parts of Australia to offer credible yet meaningful curriculum to increasing numbers of Year 11 and 12 students. Many more of these students than in the past have delayed their entry into adulthood and are not universally motivated by parental expectations for a university education. So the ubiquitous search for 'vocational' components in the post-compulsory school curriculum in the nineties can be directly linked to the sharp increase in retention rates during the eighties.

In New South Wales the search for vocational components has taken many forms. For example:

- Northlakes High School on the Central Coast, after identifying that about 40 per cent of Year 12 students failed to gain entry to tertiary courses, introduced some two years ago a local 'vocational HSC program' as an alternative stream to provide greater diversity in the senior curriculum. This incorporates Joint Secondary Schools-TAFE courses taught in TAFE, in areas such as hospitality, electronics technology and office studies, which offer full or partial credit towards major vocational awards and a related vocational placement for one day per week. Students do not operate on a discrete timetable so have no restrictions placed on their subject selections. The program meets the requirements for the award of a Higher School Certificate but not necessarily for matriculation (Metropolitan North Region 1992).
- This year the Board of Studies has introduced a new syllabus 'Industry Studies' which is being offered in about 30 schools across the State on a pilot basis using Commonwealth funds provided for 'institution-based pathways' under the new entry-level training system proposed in the Carmichael report. The new course is in modular form with outcome statements and includes a compulsory core (industry orientation, communication in the workplace, technological applications), industry-specific skills (3 x 40-hour modules related to a particular industry such as travel or metals and engineering) and an extension study (1 x 40-hour module involving theoretical study or further industry specific skills development). There is a minimum of 80 hours of structured industry placement to complement theoretical study. Negotiations are in train for staff development and for recognition of prior learning so that some secondary teachers are able to teach TAFE subjects where suitable equipment and facilities are available.
- A few weeks ago Bradfield College, a new joint venture of the Department of Education and the New South Wales TAFE Commission (located in the grounds of North Sydney TAFE) opened with about 150 Year 11 students re-entering school education after breaks in study or employment. The College offers a program which includes provision for the award of TAFE Courses in vocational fields: tourism,

business studies, computing and horticulture, as well as the Higher School Certificate. The College operates Monday to Saturday during the day and evening for 48 weeks of the year. Part of the program involves a vocational placement related to the field of study.

So what do these examples tell us? First, local curriculum developments, such as those at Northlakes, often foreshadow State-wide responses. Second, former curriculum, assessment and industrial rigidities are being broken down across the school and TAFE sectors with collaboration through joint programs offering dual credentials and joint venture arrangements.

While this is an exciting step forward there are critical hazards ahead. One is that there is a potential danger of the new 'vocationalism' in schools becoming a de facto form of streaming into 'vocational' studies (as distinct from 'academic' studies) unless the exit credential from schooling, still largely determined by the university sector, is flexible enough to recognise and equally value for matriculation purposes a range of subjects including those that are more vocational in orientation.

Another critical issue is the extent to which the secondary school curriculum can enlarge its purposes to include vocational courses. In terms of the national agenda, such courses ultimately will be required to reflect industry standards and be fully competency-based.

One potentially divisive issue is assessment. Secondary schools have become familiar with criterion approaches for some school-assessed components of the exit credential. However, since these credentials are generally used as sorting devices for tertiary entrance, the overall assessment practice has been to norm reference. This means that relative ranking of students' achievements, often to very fine points of gradation, has been the ultimate outcome of the curriculum.

In the short term the introduction of vocational components has not had a major impact on the assessment practices of secondary teachers. In the long term it will. Secondary teachers must come to grips with ways to acknowledge and value excellence while at the same time more clearly defining the minimum standards which can reasonably be expected of all students enrolled in a particular course (rather than using a norm-referenced system).

How to Cope with the New Vocationalism

What all this means in practice is that general educational purposes of schooling are being redefined to include vocational components. Once there was a clear distinction in curriculum terms between 'academic' and 'technical'. In New South Wales, for example, as recently as the mid-sixties, there were separate schooling systems for each purpose. In the nineties, after two decades of general education largely delivered through comprehensive high schools, the central question is: how 'general' is the academic basis of the curriculum and how specific is the 'vocational' component within that general framework?

A better way to pose the question is to consider the extent to which each course or subject can be characterised in terms of the relative emphasis of three elements: theoretical knowledge, practical application of that knowledge and generic competencies. Generic competencies are best conceptualised for us as the key competencies of the Mayer Report: gaining and organising information, expressing information, problem solving, using technology and so on. Each subject in the school curriculum, whether it is called 'general' or 'vocational', can be characterised according to the mix of these elements. For example, a course of study in English literature is largely about the attainment of some general forms of theoretical knowledge, on the one hand, and generic capacities such as expressing ideas in writing, logical analysis, and critical thinking, on the other. Often now those generic capacities are applied to different purposes. Physics is as much concerned with practical applications as it is with theoretical knowledge. It also involves generic capacities which are similar to those required for the study of English literature as well as others such as the capacity to use technology. In other words the 'general' curriculum is made up of a range of subjects with differing emphases on theory in comparison to practice and the type of generic capacities which they assume and develop.

The use of the descriptors, theoretical, practical and generic, is just as instructive in highlighting the diverse characteristics of 'vocational' subjects. There is considerably more acknowledged theoretical knowledge, specifically about economics and organisational behaviour, for example, imparted during the study of 'business studies' than there is for the study of the broad-based entry level modules in 'metals and engineering'. The generic skills involved in the former case include collecting and organising information and communicating ideas, while in the case of the latter, the most relevant generic capacities are solving problems and using technology. Both discipline areas involve the use of mathematical ideas and techniques — another Mayer competency.

It is possible to conceive of a profile for each subject in the curriculum according to whether the subject is more or less theoretical in comparison to practical, and the nature of the generic capacities which are required to undertake and complete the subject. If this approach were adopted the 'general' versus 'vocational' dichotomy would disappear and, instead, a way of distinguishing the significant characteristics of specific subjects would emerge. If each syllabus document and accompanying course information were formatted so as to alert prospective students and their parents to these distinguishing characteristics then it is likely that there would be a better match between students' interests and capacities and their subject choices. The basis for the perceived hierarchy of 'academic' over 'technical' or 'vocational' which ultimately results in certain subjects being more valued for the purpose of determining entry to tertiary level courses would also be exposed to challenge and critique.

If, for example, a Year 11 student intends to study engineering at tertiary level she or he may well benefit from choosing a TAFE subject in the metals and engineering field. This would expose them to the use of relevant technology in practice to

complement their more theoretical studies in Physics and Mathematics. Similarly, a student intending to pursue a career in the travel and tourism industry might strengthen their theoretical studies by undertaking a 'business studies' course developed by the TAFE sector in addition to more practical studies such as Art or Media Studies or Japanese language.

To bring this about requires both a new attitude and new timetabling. While Year 11 and 12 students in theory usually have a range of both 'general' and 'vocational' subjects to choose from, in practice the choices are far more limited. Typically subjects are offered according to particular patterns and groupings governed in part by the rules for matriculation awards and by old assumptions. Until ways are found to overcome some of these rigidities we will continue to force many students into subject choices that at best are smorgasbord in style and at worst deny them the opportunity to meet their actual educational needs and career aspirations. This is not to say that it is not important and necessary for all students to have the opportunity to develop knowledge or skills across a broad range of subjects. However, forcing subject choices, which may be of little or no interest, simply because these subjects win HSC 'marks' or fit into conventional timetable patterns, is not a fruitful way to develop the talents of our young people.

Putting General Education to Work

Development of generic skills and capacities, independent of specific subject content, is germane to any educative process. Imparting the capacity to learn how to learn is embedded in all pedagogical practice whether it be for pre-school or adult learners. Given that this is the case it is interesting to note that amongst educators there has been more attention paid and more debate generated about the Mayer Committee (1992), which outlined a set of generic, employment-related competencies, than about the proposals for a new structured entry-level system of vocational education and training (Carmichael 1992).

I suspect that the reason for this different level of response has at least two sources. One is that few educationalists in the secondary and university sectors understand the detail of the national and State reforms underway in the vocational educational and training sector or the connections between the different reform strategies. The other is that, while the Carmichael proposals *prima facie* legitimate trends and practices already present in many secondary schools (such as 'compacts' with local industry for work experience and future opportunities, vocational electives, joint TAFE programs and so forth), the Mayer Report challenges some current practices and their underlying assumptions. It questions, for example, the notion that subject content is all that is important for the teacher to impart. It pushes teachers to look, as well, at the broader and more general skills which need to be taught through that subject.

What does this tell us about the place of generic skills and capacities in the curriculum? To provide a partial answer to the question, I will draw on some recent research

which highlights what academics and business people say they want from university graduates as employees. The Confederation of Australian Industry (1991), after surveying the views of members, argues that workplaces in the nineties need to have new organisational structures and management styles: flat structures, high levels of employee participation, and multi-skilled workers rather than hierarchical structures, tight management control over decision making and narrowly skilled workers. As a consequence, workplaces will require employees who have personal and social skills which are as highly developed as their levels of technical competence. The Business/Higher Education Round Table (1992) survey of business leaders and academics found that, although they differed in emphasis, they nonetheless identified a similar set of characteristics to distinguish very able from less able graduates. These characteristics included: communication skills, capacity to apply theoretical knowledge in the professional field, capacity to learn new skills and procedures, capacity for cooperation and teamwork, and the capacity to make decisions and solve problems.

These characteristics are, of course, generic skills and capacities. If academics and business leaders are right, notwithstanding their possible differences in rationale, there is a need to place more rather than less emphasis on acquiring these skills prior to entry to further study and/or employment. The Mayer Report (1992) accepted these arguments and noted too the recent development of core or essential skills and 'workplace know-how' in other OECD countries, particularly Britain, New Zealand and the United States of America. In each case these developments have led to the identification of skills and competencies which are:

- 'generic', that is, not specific to a discipline or subject area, qualification or award, and therefore apply generally to working and adult life
- common to both general education and vocational education and training
- concerned with outcomes described in levels so as to identify differences of individual attainment (Mayer 1992, 10-11).

The Mayer Committee, in defining what was meant by key competencies, attempted to balance two equally pressing priorities:

- following Finn (1991), to establish clearer relationships between education and training and employment; and
- to reflect a broad rather than a narrow view of 'work' that acknowledged both the reforms in workplaces due to award and industry restructuring as well as the variety of forms and context of employment (paid/unpaid, public/private, community/domestic and so forth).

Thus the key competencies were designed to reflect the future rather than past patterns of work. The position accepted was that if generic, employment-related competencies were to be a key to the future then they must apply generally to emerging patterns of work and work organisation rather than applying only to specific occupations or industries in the present. In short, the Mayer Committee conceived the key competencies as being 'the capacity to apply knowledge and skills in an integrated way

in work situations' (Mayer 1992, 5). Such generic skills, it was argued, also would be of value for further education and essential to adult life in general.

In this way the Mayer Committee adopted a broad rather than a narrow notion of competence 'which recognises that performance is underpinned not only by skill but also by knowledge and understanding' (Mayer 1992, 4). Competence in these terms is holistic as it involves not only a 'hands on' practical dimension (the ability to do something to perform in a given context) but, also a 'hands on' theoretical dimension (the ability to think about the performance and the capacity to transfer knowledge and skills to new tasks and situations). In other words, the competent performer has grasped the principles behind actions and thus there is the possibility of transferring this new knowledge to other contexts. Clearly this broader definition emphasises that competencies are not 'trained' behaviours. This means that they cannot be explained or inculcated through behaviourist learning methods such as low-level drill or reinforcement because they 'incorporate a sense of learner as one who builds concepts and develops understandings which inform technical applications' (Mayer 1992, 5).

I have elaborated the views of the Committee at some length because it is a common misunderstanding to conflate development of vocational competencies, which are linked explicitly to specific industry standards, with the development of the key competencies which, being generic, are not specific to any particular industry or workplace context. It is a further misunderstanding to assume that the holistic notion of competency used to derive the key competencies somehow lacks congruence with the definition of competence adopted by the National Training Board (1991). In fact the two definitions are conceptually consistent.

To illustrate this consistency: a recently completed investigation to articulate the principles by which key competencies might be incorporated into industry competency standards (Ducker 1992) was based on a consultation with Competency Standards Bodies and built on a previous study which had proposed two means — the integrated model and the adjunct model — whereby key competencies could be built into industry competency standards. The major conclusion of the project was that neither model should be accepted or rejected and that instead a more fundamental task should be undertaken. This is to map the key competencies onto the National Standards Framework competency standard for each industry. This involves including key competencies in the 'units of competency' which are the outcome statements that make up a particular industry competency standard (Ducker 1992, 7). Such a process can occur either during the development of the standard or after the standards have been established.

As both the standards and the key competencies derive from the workplace, it is not surprising that the key competencies help to capture and identify the substance of the knowledge and skills required for a particular unit of competency within an industry competency standard because they provide more information about the nature of the work which the units attempt to describe. In this way the key competencies provide a useful check on the adequacy of standards being developed by Competency Standards

Bodies. In considering which parts of the key competencies underpin their standards it is easier for a Competency Standards Body to identify gaps in their standards and better ways to design their standards so as to encourage broad rather than narrow skills development.

Conclusion

If we are to provide our young people with the key to their future we need a new approach to curriculum design in the post-compulsory years. A useful beginning point might be to start identifying the profile of our existing and emerging subjects in terms of their theoretical, practical and generic characteristics. As the technologies for information transfer and retrieval become even more sophisticated it is not the content which is critical for success as a learner but the generic skills of being able to collect, analyse and evaluate information and use the technology concerned. Workers and learners in the 21st century are unlikely to pursue 'careers' *per se*. They are likely instead to experience cyclical patterns in their work lives, sometimes involving lateral movements and at other times consisting of upward mobility as their knowledge and skills broaden and diversify. The changing employment context of vocational education and training offers the potential, indeed the necessity, for innovative relationships between schools and TAFE, in order to respond to the educational and career development needs of students in their post-compulsory years.

References

Australian Education Council (1991) *Young People's Participation in Post-Compulsory Education and Training* (Finn). AGPS, Canberra.

Australian Education Council and Ministers of Vocational Education, Employment and Training (1992) *Putting General Education to Work : The Key Competencies Report* (Mayer). Melbourne.

Business/Higher Education Round Table (1992) Educating for Excellence *Education Surveys, Commissioned Report No. 2*. Melbourne.

Confederation of Australian Industry (1991) *Paper on Vocational Education for the National Industry Education Forum*. Melbourne.

Ducker, C (1992) *Industry Competency Standards and Key Competencies*. NTB, Canberra

Employment and Skills Formation Council (1992). *The Australian Vocational Certificate Training System* (Carmichael). NBEET, Canberra.

Metropolitan North Region (1992) Vocational HSC, *Issues and Options in Post-Compulsory Education*. Sydney.

National Training Board (1991) *National Competency Standards: Policy and Guidelines*. Canberra.

Pennington, D (1992) Directions in Education *Australian Council of Educational Administration*. 1, 5:1.

Paige, P *et al* (1992) Competencies for a Clever Country: building a house of cards? *Unicorn*. 18, 3, 50-8.

Sydney Morning Herald (1993) Queuing for TAFE not INXS, 2 February 1993.

Competency-Based Training in TAFE: Rhetoric and Reality

Bert Beevers

This paper adopts a critical approach to the Department of Employment, Education and Training (DEET) National Training Board (NTB) model of Competency-Based Training (CBT) currently being implemented in Australian Technical and Further Education (TAFE) systems. The intention, however, is not to imply that everything associated with the concept of CBT is bad. Clearly that is not true.

Reforms have occurred and are occurring. However, these mainly have been related to bureaucratic structures, administrative arrangements and technical aspects of the vocational education system.

As Murray-Smith argued (1966) in relation to the reforms of the 1890-1914 period, Australians are once again retreating from the liberalising facets of vocational education and in doing so are reducing the character of the largest post-compulsory learning system in Australia to strictly instrumentalist and utilitarian purposes. A hundred years of educational, psychological, organisational and cultural research has largely been ignored.

At the macro level it is difficult, if not foolish, to argue against the notion of competency-based approaches to vocational education. After all, throughout recorded history, organisations involved in vocational development — be they medical, legal or trade associations — have pursued the goal of certifying their members as being competent. Indeed, there must be few people involved in vocational education who would argue that their objective is to facilitate the development of incompetent people.

Currently, however, a particular form of CBT has been adopted by a dominant coalition of selective parts of the state, big business and peak union bodies, as a universal truth and a cure-all for problematic issues such as economic deterioration and workplace restructuring. Furthermore it is expected to provide equitable access to vocational education and employment as well as the means of constructing the clever country. History suggests that in situations such as these there is a need to disentangle the reality from the rhetoric and isolate the winners from the losers in the new paradigm.

Until recently this has been difficult in Australia because little has been imple-

mented — there has only been rhetoric. Indeed in the 12 years since the Department of Labour Advisory Committee (DOLAC) recommended that all apprenticeship authorities introduce competency testing for apprentices (Murphy 1990, 101), no CBT-type apprentices have graduated. At least this is true in terms of how the NTB currently defines 'competency':

> The specifications of the knowledge, skills and the applications of that knowledge and skills within an occupational or industry level to a standard of performance required in employment (NTB 1992, 11).

The delay in 'output' of competency-based graduates is hardly surprising. The recent implementation and operationalisation of the current NTB model of CBT has revealed numerous inherent contradictions and concerns. The NTB model is built on positivist notions that tend to treat 'skill formation' and 'competence' as value free concepts which have a natural meaning like wood or iron — 'things' which can easily be categorised, measured and quantified (Owen 1992, 177). Positivism is also unsympathetic towards, and tends to ignore, the human psychological and cultural practices which necessarily underpin learning and working.

Positivists attempted a top-down implementation of the National Metals Curriculum and, in the process provided evidence of the difficulties involved in such an approach. The Metal Trades is an industry which has been at the forefront of vocational education in Australia. It has been applauded by the then Minister for Employment, Education and training, John Dawkins for being at the cutting edge of the National Training Reform Agenda (NTRA). It has been driven by one of the most powerful coalitions — the Metal Trades Federated Unions (MTFU) and the Metal Trades Industry Associations (MTIA). In 1988 it pushed for the establishment of a National Metals Curriculum that was nationally recognised, modular and competency-based.

Despite some five years, millions of dollars, and over 400 completed modules, there are still no endorsed national standards. Even more discouraging is the fact that the new modules are only old wine, much of which now is well past the use by date, in new bottles. This situation has led to repeated proposals by training providers to the Australian Council for Training Curriculum (ACTRAC) for funds to upgrade the Metals Curriculum. Ironically, ACTRAC has had to refuse because national curriculum is supposed to be based on national industry standards and, as at January 1993, these were still in draft format.

In this we see the ludicrousness of an 'overcontrolled', top-down reform agenda. A similar situation exists in the Building and the Textiles, Clothing and Footwear industries. In the modern, technological, exponential growth society, this is going to be an exponential problem, particularly where large bureaucracies are involved. And a large bureaucracy is just what DEET is creating.

The aim of this paper is to tease out some of the major concerns and contradictions that are emerging as the NTB model of CBT is foisted onto the existing TAFE culture — a culture that has had minimal input into the model it now must deliver.

There is nothing inherently wrong with the goal of developing competent people, as long as the definition of competence is broad enough and the institutional structures flexible enough to enable all learners to attain their potential in as many facets of human endeavour as possible. In a 'highly multi skilled egalitarian society' (Meecham 1992) those in the so-called 'trades' should not receive a different form of vocational education than those in the so-called 'professions'. In such a society all of its citizens would have to have the opportunity to partake in a common form of general and vocational education. Further, the curriculum of these forms of education would not be dominated by the happenstance of current workplace practices, as is implicit in prevailing ACTU policy (ACTU 1991, 193-215). As educational philosophers such as Peters (1966) and social theorists such as Habermas (1976) have been at pains to point out, while it is crucial that a 'technical' work interest is fostered to enable people to control the natural world in order to secure their physical environment, people also have other fundamental interests as human beings. These include a need to be recognised; a need to be understood; a need to understand their political, social, economic and physical environments; and the need to develop some cultural and metaphysical understandings in which to make sense of their lives. We have an emancipatory interest which seems to centre on humankind's inexorable push to transcend current 'human nature', to become something better than what currently is. As Kant put it over 200 years ago, we are attempting 'the realisation of freedom here on earth' (in Fukuyama 1992, 60).

The DEET/NTB Model of CBT: Some Comments

The NTB (1992) states that CBT is the 'keystone' of a whole raft of vocational education reforms, now known as the National Training Reform Agenda (NTRA). It notes that competency standards are to be based on the structure of work within a particular industry and written in terms of workplace outcomes. The standards are to be developed by tripartite competency standards bodies with reference to the hierarchical Australian Standards Framework (ASF). The standards provide the 'specification of the knowledge and skill and the application of that knowledge and skill to the standard of performance required in employment'. The Board believes that it has arrived at a broad definition of competence because embedded in its concept is the 'ability to transfer and apply knowledge and skills to new situations and environments'.

The NTB further contends that its definition encompasses all aspects of work performance. That is, there is a requirement to perform individual tasks (Task Skills); manage a number of tasks within a job (Task Management Skills); respond to irregularities and breakdowns in routines (Contingency Management Skills); deal with the responsibilities and expectations of work environments, including working with others (Job/Role Environment Skills), and apply new skills in new situations and changing work environments.

Unarguably this is a broad definition of workplace competence. If operationalised as written, and translated into vocational education tasks that students learnt, performed,

and were assessed on, then it could probably be inferred that holders of the associated qualifications were competent at a particular ASF level of work. As previously noted, such outcomes are yet to manifest themselves.

However, even though the Metal Trades are regarded as being at the cutting edge of the NTRA, an examination of the module descriptors produced by tripartite experts in 1990 indicates that while the majority of the module descriptors satisfy the 'Task' and 'Task Management Skills' components of the NTB definition of competence, 'Contingency Management Skills' are implicit rather than explicit in many descriptors. Few descriptors outline Job/Role Environment Skills and it is difficult to find any module descriptors that 'capture the ability to apply skills in new situations and changing work organisations' (NTB 1992).

To be fair, the Metals Descriptors were developed before the NTB definition of competency and endorsed NTB Metals Standards were available. Indeed the Metals Standards are still in a draft format. Nevertheless, while some of the draft standards, for example in the Work Organisation field, seem to address all components of the NTB competency definition, as the time for implementation draws closer a number of the more difficult and contentious aspects of the NTRA have disappeared from view. The Finn/Mayer 'Cultural Understanding' key competency is one example of this vanishing act. Similarly there is the desire by some key industry officials, at least in Western Australia, to remove the obligation of apprentices to do 'less instrumental' metals modules. That is, they want to change the status of current **core** modules such as Communications, and Industrial Relations, to **electives**. A close watch will have to be kept on what is actually implemented.

A different problem is that the NTB definition of a competent worker seems to imply that people have no other role in life except work. Even the Finn/Mayer generic skills/key competencies are work based, despite a 30 year world wide trend of diminishing work prospects (Coombs 1990; Gortz 1989; Jones 1982). The NTB seems hell bent on taking the largest, formerly 'education' based system in Australia — TAFE — and eradicating from it any footholds into and/or spaces for development in other facets of human educational endeavour than those for work-based training. The NTB model of CBT leaves little if any space for the learning domains of the personal, social, ethical, humanistic, emancipatory, political, economic or environmental awareness and responsibility.

Further, as Kinsman (1992, 56) notes, the NTB model is rooted in the Taylorist/social efficiency school of thought that was so influential in the USA during the 1920s. Commentators from this school argued that a vocational education curriculum should be derived from a task analysis of the functional content of the occupation in question and the inculcation of appropriate work habits by would-be workers.

The social efficiency school is also noted (Apple 1979) for its application of two models of curriculum: an undirected model for society's leaders, and an efficient, controlled curriculum for society's followers — the workers, the 'duller masses' — who

could not think for themselves and must be 'drilled to follow by imitation' (in Kinsman 1992, 57). Even though some university deans still condone this approach (Kinsman, 57), it is puzzling that political leaders of the would-be 'clever country' could adopt such a model around which to fashion a reformed vocational education system. How can it possibly create Australians who can 'draw upon our gifts and acquire intellectual creativity, technological know how and manual dexterity' (Dawkins 1991, 2)?

However it is even more astounding that union leaders have fallen into line. Meecham, the Assistant Secretary of the Trades and Labour Council of WA, has argued that unions:

> as representatives of people who have only their labour to sell, have embraced the competency based system as a means to maximise the value of that labour in pursuit of a more skilled and egalitarian society . . . believing that CBT will help to facilitate the change from a domestically-focussed, low skill, low wage economy into a globally competitive, high skill, high technology and high wage workforce for Australia (Meecham 1992, 5).

This is not to contend that Dawkins and Meecham consciously aim to develop a pool of worker droids. They are more concerned with the well being of workers than those American educational efficiency experts of an earlier era against whom Dewey (1916) argued so strenuously (see Bobbits 1912 and Cubberley 1927 in Callahan 1964).

However, when efficiency becomes the primary focus of educational policy and management objectives it brings with it a search for control. This, in turn, develops an infrastructure which ensures a highly regulated form of educational provision. These factors then create what Little (1985) refers to as the factory model of learning. In this model learning tasks are specified by 'experts' and routinised, with learners prepared for specific rather than general functions. Further, those most deeply involved in the task of learning — learner and teacher — have the least input into the model.

It is a failure to acknowledge this inevitable outcome which plagues vocational education policy and gets its leaders involved in contradictions. Yet students and teachers are workers, and competency-based policies and practices largely alienate them 'from the decision making'. Carmichael (1991, 8) noted:

> You cannot pursue quality if you have any type of alienation of the workforce that is involved in delivery. If people are alienated from the decision making then they are alienated from the quality of the product that they are being asked to deliver.

Contradictions such as these tend to manifest themselves in the implementation phase, particularly when implementation is being overseen by a pragmatic, corporatist state in a period of economic scarcity within an economic rationalist paradigm.

Australian Standards Framework: Can It Work?

The ASF is a set of eight competency levels which are to serve as benchmarks for the development and recognition of competency standards in relation to work across the

Australian economy. The objective of the framework is to enable work, training and qualifications to be related by using competency standards (NTB 1992, 16).

By incorporating several NTB tables it is possible to produce a chart which shows approximately how the ASF levels, industrial classifications and qualifications align and are locked together (NTB 1992, 23-27).

Approximate alignment of ASF levels, qualifications and industrial classifications

Qualification	ASF Level	Industrial Classification Example
Degree	8	C1B
Diploma	7	C1A
		C2B
		C2A
Associate Diploma	6	C3
		C4
Advance Certificate	5	C5
		C6
		C7
Post Trade Certificate	4	C8
		C9
Trade Certificate	3	C10
Certificate	2	C11
		C12
	1	C13
		C14

Thus the competency standards decided by industry will become the benchmarks against which people will be assessed and credentialled. The accredited, work-based competencies will count for admission to learning institutions and/or credit towards further qualifications. Importantly they are also expected to be fundamental in awarding position and opportunity in the workplace — concurrent with wage levels and societal status. This is the carrot which is supposed to induce people to go through recurring rounds of competency-based assessments.

This carrot may have little pull. It bears little relation to how people actually gain employment. Data from the 1990 Australian Bureau of Statistics clearly indicate that in the real world, as opposed to the NTB model, knowing the right people is the most important criteria: '41 per cent [of jobs] were secured through friends, relatives or company contacts', with up to 80 per cent of people in some industries being placed

via 'networking' (Hazlewood 1992). The existence of the network must have been known to the model makers as it appears to be particularly crucial at the higher status and salary levels at which the model makers work.

Interestingly the captains of industry who are steering the NTB/CBT vessel have not set national standards for themselves. Competency standards seem to be for the 'workers' only. As yet there has been no talk of national standards and assessment criteria that must be passed before a person can:

- own a company
- become a company shareholder
- sit on a managing director's board in a particular industry
- become a politician
- become a cabinet minister in a particular area
- become a union executive.

Closer examination of the NTB model reminds one of the recently collapsed Soviet system, or of the society outlined in Michael Young's *The Rise of the Meritocracy* (1968), where people were assigned to levels according to their IQ rating: Level 3s only procreated with other Level 3s and formed Level 3 communities; the only escape from the bureaucratic iron cage was by advancing up the scientifically controlled, meritocratic ladder — or by revolution.

The NTB's framework also appears to contradict much that has been written by the coalition partners concerning the needs of the 'clever country'. The ASF level descriptors are as much about hierarchical control as they are about industrial competence. These descriptors are embedded with Taylorist and social efficiency notions of 'scientific management' and the inculcation of appropriate work habits.

The level descriptors state:

Level 1 Work is likely to be under direct supervision with regular checking. . .

Level 2 Work is likely to be under routine supervision with intermittent checking. . .

Level 3 Work is likely to be under limited supervision. . .

Level 4 Work is likely to be with general guidance on progress and outcomes. . .

Level 5 Work is likely to be under broad guidance. . . (NTB 1992, 17-18).

Yet, the NTB notes that the training reform agenda is also committed to 'workplace reform with new methods of organising and conducting work' (1992, 7). The rhetoric of workplace reform has primarily revolved around the interrelated concepts of greater efficiency based on industrial democracy and new forms of work and management organisation (ACTU/TDC 1986, 135-167). Ford (1986) and Mathews (1989), drawing on theoretical research and empirical evidence, argue that these new 'post Taylorist/Fordist' approaches require quality conscious, adaptive, cohesive, innovative, participative, flatter structured, equitable, group-work organisations and concomitant vocational education policies, structures and programs. The rhetoric of the ASF is clearly at odds with these crucial aspects of industrial reform.

Industry and the Industries Training Advisory Boards

The 'keystones', as noted previously, are the competency standards developed by the industry parties via the Industry Training Advisory Boards (ITABs) or Industry Employment Training Councils (IETCs). However, recent evidence suggests that the ITABs/IETCs are not yet up to being the pre-eminent source of industry advice on vocational education, as is assumed in recent Australian National Training Authority (ANTA) legislation.

In 1990 the Employment and Skills Formation Council (ESFC) raised doubts about the ability of the ITABs to ensure the attainment of agreed training objectives. Carmichael (1992) concurred, noting the highly variable performance of the ITABs. Pickette (1992, 243, 247) argues that 'industry is not well prepared for its central role [in the NTRA] in an organisational, managerial nor a policy sense', noting that 'if the ITAB response to the development of training needs analysis and training plans for industry sectors is any indication of preparedness then it is fair to say that we are in a state of virtually complete non-preparedness'.

Pickette further suggests that when industry is asked by training providers to develop a set of competencies for an industry sector outside the traditional apprenticeship areas, the request usually ends up in the too hard basket. He notes that in the ACT 'not one of the 15 ITABs has a training plan that is useful for the general planning of vocational training' (1992, 248).

Butterworth's (1992b) findings support Pickette's arguments. Butterworth notes that small to medium firms (the majority of industry) have 'great difficulty identifying and articulating their own basic training needs, let alone the key competencies for their industry'. Further, because of the 'extremely short planning horizons', there is a danger of ploughing millions of dollars into soon-to-be redundant knowledge and skills (1992b, 22-23).

A similar situation currently exists in Western Australia. In the 28 months since the inception of the State Employment and Skills Development Authority (SESDA) and the reconstruction of industry advisory bodies into the 20 IETCs, WA TAFE has yet to be provided with *any* new industry training sector profiles. This is despite the legal responsibility of IETCs to:

- identify current and future skills formation requirements
- coordinate the development and delivery of skills formation programs and services to meet these requirements
- advise the authority and government on 'skills formation requirements of industry' (SESDA 1992, 1).

While in general there are moves to develop new industry training profiles there seems to be a preoccupation with policing what is already in existence.

Pickette believes that this situation has arisen because the ITABs/IETCs remain largely unknown within their industry sectors, have poor communication strategies and

are not well established at the national level. Further there is an 'inherent structural and power tension between the ITAB network and the peak employer bodies' (1992, 247). In Western Australia, anecdotal evidence suggests that a similar situation exists. There are not only rifts between some State IETCs and SESDA, but also between elements of the Chamber of Commerce and Industry (CCI), the peak industry body, and SESDA (CCI 1993, 2). 'Power tensions' have also existed between SESDA and the Department of Employment, Vocational Education and Training (DEVET).

Another important matter in relation to the training agenda is the competence of the industry managers who have now been put in charge. Pickette (1992, 243) reveals, when comparing Australia to the 23 nations in the World Economic Forum in the areas of human resources, labour and training management, that Australia ranked in the 20s in all of the following:

- employee turnover and absenteeism
- corporate credibility
- new business generation
- managerial initiative
- industrial relations
- worker motivation.

These facts highlight three problems. Firstly a weak sector (by international comparison) of Australian society — a sector which in previous coalitions with the corporate state oversaw the South Australian State Bank, the WA Inc and Victorian debacles — now has primary responsibility for formulating the future direction of vocational education.

Secondly within that sector, at least in Western Australia, the employers who employ most labour are largely left out. Initial research suggests that the representation of small firms of eight or less employees on the IETCs is highly varied. Rarely is their representation in proportion to the number of people they employ State-wide. Thus, as with the training levy (Butterworth 1992a), those enterprises that employ over 70 per cent of the workforce in Western Australia and have traditionally been little involved with employee development are still the least represented and consulted and therefore the least involved in the NTRA.

Thirdly, given that the major objective of the whole NTRA was to renew and upgrade vocational education curricula, the ITAB problems have brought protracted delays in new curriculum development. This has meant that in the three years since its inception the NTB has only endorsed ten sets of industry standards, mainly in the small industrial sectors (Collins 1992a, 5). At most Australian Council for Training Curriculum (ACTRAC) meetings in 1992, curriculum projects were postponed because the industry standards were not yet in place (ACTRAC 1992).

The Metal Trades, discussed earlier, provide a classic example of the difficulties involved in reaching agreement on national standards — and this in an industry that has been at the forefront of vocational education in Australia for over a century.

This is not to argue that those involved in the productive process should not be involved in the development of standards for their industry, but to highlight that 'models' are not reality. This is particularly true of positivist models of society that fail to take account of the 'political' actions of real people in the real world. And it is, of course, especially true when the interests of the 'bureaucrats' in the ITABs cannot be exactly the same as those of the employees or employers they purport to represent.

The Growth in Bureaucracy

The introduction of CBT along with other NTRA reforms has fuelled the growth of the bureaucracy in an attempt to satisfy the desire for managerial accountability.

Butterworth believes it has provided a 'field day for the bureaucrats' (1992, 3). Butterworth highlights the Vocational Education, Employment and Training Advisory Committee (VEETAC) working parties, contracts of training, approval mechanisms and records for employees and employers, competency schedules, assessment setup and recording, prior learning records and assessment, competency recognition bodies, certificates of competence, consolidated competency records, training capacity surveys, allocation of training responsibilities and resources. Jackson, in this volume, agrees.

Collins's (1992c, 3) flow chart of the major national Western Australian vocational education and training bodies gives some idea of the burgeoning bureaucracy (see Figure 1).

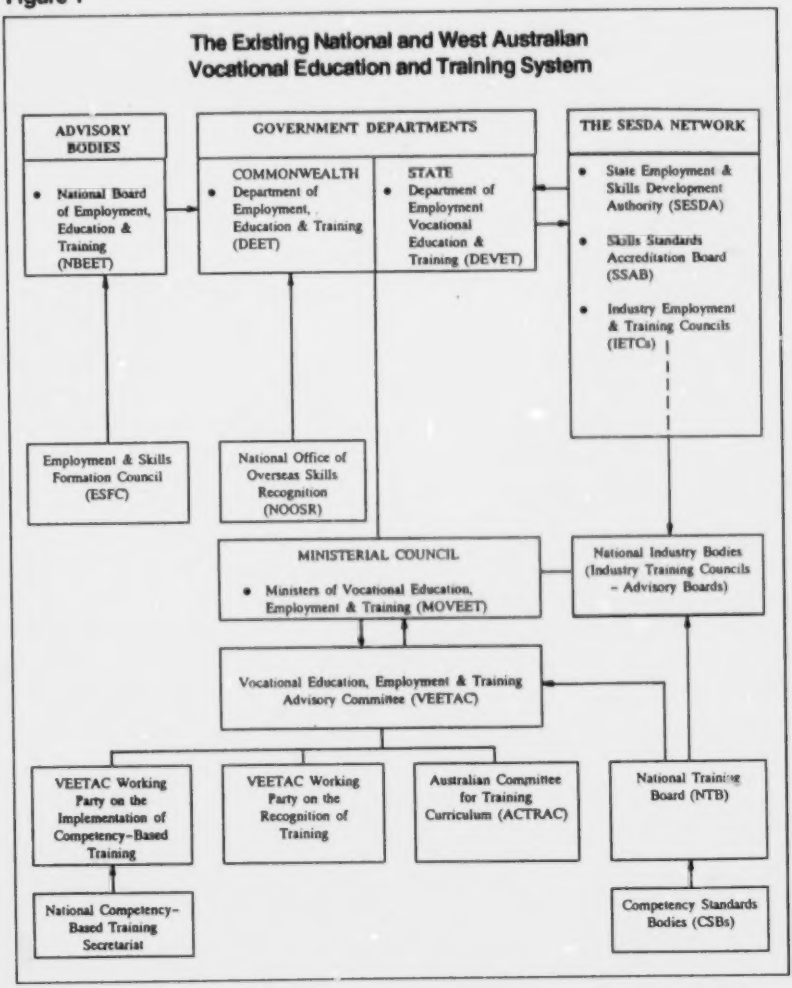
It needs to be remembered that this flow chart only represents the peak bodies, the tip of the iceberg. For example, as at June 1992 there were 34 national 'Competency Standards Bodies' (NTB 1992, 1, 7) with each State and Territory having a similar number of related ITABs/IETCs. VEETAC currently controls over 90 working parties (Kinsman 1992, 56) and ACTRAC has over 110 working parties developing national competency-based curriculum products (ACTRAC Nov 1992).

While all TAFE teachers are expected to use these ACTRAC curricula, few have the opportunity to be closely involved in their content, design or development. As a result they do not have 'ownership' of the material they are expected to use. This is asking for trouble: decades of curriculum research has shown that disenfranchised teachers rarely use the curriculum as the policy makers, designers and developers envisaged (eg Connolly 1972; Brady 1983; Rozenholtz 1987).

The increase in bureaucracy is also manifest in TAFE organisations which have been restructured as part of the 1980s public sector reforms (Yeatman 1990). Collins (1991, 13) argues that these reforms are mainly about increasing 'the steering capacity of the Minister through a system of accountability which stretches from senior 'managers' down to the classroom'.

In TAFE in Western Australia a decade ago the equivalent of 1832 full time teachers were supported/managed by 116 senior support staff — a ratio of 15.8:1. There were 9 Directors/Assistant Directors; 8 superintendents; 36 Principals/Deputy Principals; 63 central office education officers/policy planners. There were also 56 Heads of

Figure 1


The Existing National and West Australian Vocational Education and Training System
ADVISORY BODIES
• National Board of Employment, Education & Training (NBEET)
GOVERNMENT DEPARTMENTS
COMMONWEALTH
• Department of Employment, Education & Training (DEET)
STATE
• Department of Employment Vocational Education & Training (DEVET)
THE SESDA NETWORK
• State Employment & Skills Development Authority (SESDA)
• Skills Standards Accreditation Board (SSAB)
• Industry Employment & Training Councils (IETCs)
Employment & Skills Formation Council (ESFC)
National Office of Overseas Skills Recognition (NOOSR)
MINISTERIAL COUNCIL
• Ministers of Vocational Education, Employment & Training (MOVEET)
National Industry Bodies (Industry Training Councils - Advisory Boards)
Vocational Education, Employment & Training Advisory Committee (VEETAC)
VEETAC Working Party on the Implementation of Competency-Based Training
VEETAC Working Party on the Recognition of Training
Australian Committee for Training Curriculum (ACTRAC)
National Training Board (NTB)
National Competency-Based Training Secretariat
Competency Standards Bodies (CSBs)

Department but these people taught as well as administered (Dormer 1983, 83-4; A41-A42). This led to a situation of understanding and empathy between administrators and teachers.

A decade later 2063 full time equivalent staff are managed/supported by 223 senior support staff — a ratio of 9.25:1. The managers consist of 1 Executive Director;

3 Assistant Executive Directors; 19 Directors; 20 Assistant Directors; 35 Associate Directors; a number (as yet to be announced) of non teaching Heads of Program (OTAFE July 1989 indicated approximately 35 Heads of Programs) and 110-plus central office Education Officers/Level 4-5-6-7 public servants (DEVET 1992a and 1992b).

There has thus been in relative terms a 42 per cent increase in middle to senior level non-teaching staff. As the pay differential has also increased the cost ratio of managers to teachers has increased considerably more than the figures show. And there have been other massive costs. Kinsman believes that the CBT part of the NTRA exercise alone has cost tens of millions of dollars. Nothing has yet put in place to monitor the 'value' that the new approach has added (1992, 56).

One would have expected that in an outcomes-based approach some measures would have been implemented to measure the real improvements that reforms have or will create. If not, there is either an inherent contradiction or an unfounded belief, impervious to all evidence, that just because industry sets the standards and teachers work from national curriculum documents based on industry standards, then workplace productivity will improve. This religious faith and fervour that there is a God-given, self-evident, logical coherence to the whole DEET/NTB approach to CBT, does seem to be evident in some policy makers and senior officials.

This is not to argue that a competency based approach is totally illogical. CBT does appear to have a logical coherence in terms of its capacity to facilitate managerial accountability and control, and administrative order and tidiness (Collins 1991). These are technocratic capacities that for Jackson make it an 'increasingly attractive proposition to administrators and politicians alike in the present political and fiscal climate' (1992, 192).

As Jackson argues, a CBT approach provides managers with access to what they need to know, to the extent they wish to know it. It enables them to tick off that employers have been consulted, programs validated, required competencies taught and assessed (1992, 193-4).

However, in the final analysis, this amounts to what can be made to seem to have been done. It relates to image, not to what learners can actually do. As in the past, institutional assessment of a learner's competence still depends on the teacher's ability to infer from available evidence. On the learning workshop floor, little has changed.

Inputs to Outcomes = Learning to Management?

For the future resourcing of the TAFE system, and in some cases the survival of their own positions, it may be necessary for TAFE Directors to be able to show conclusively that all the performance indicators have been met. How the actual learning process can be improved seems to have been lost in this shift in emphasis from inputs to outcomes, from a TAFE model for learning to a curriculum model for TAFE. As Kinsman notes, the 'CBT system of learning is quite deliberately silent on the

preferred process of learning. . . Rather, it is stated that competencies can be acquired in a wide variety of ways' (1992, 57).

Given that there are numerous ways to learn different competencies, it seems somewhat unfortunate that the de-emphasis on learning processes and the congruent emphasis on an accountable curriculum model seems to have distracted the managers from the fact that teachers — both old and new — need to be educated and trained to put into practice the various learning processes. After all is said and done, students still have to learn how to learn, and be encouraged into the learning process. These elements still rely on the characteristics and attributes of teachers.

This leads to the final contradiction that this paper will briefly examine — teacher education.

In 1988, before the time of the training levy and just as the rhetoric of the NTRA began to pick up momentum, the Western Australia Department of TAFE was supporting over 80 full time teachers to attend two-year teacher education courses at university. TAFE was also actively seeking ways to enable a further approximately 400 untrained full time teachers to commence their teacher training within five years.

This policy was generous. It removed the responsiblity of TAFE lecturers to make any personal contribution to the shift from technical expert to professional teacher. However, contained within the policy was the recognition that technical experts were not inherently good teachers. It is a significant step to move from technical expert to a professional teacher who can facilitate not only technical competence but also direct a diverse student population along a continuous pathway of learning.

However, in spite of the increasing industry, government, union and even TAFE appeals to increase the education and training of workers to facilitate the development of the 'clever country', the Western Australia government has allowed its TAFE system to reduce its commitment to teacher education/training at an inversely proportionate rate. In 1989 WA TAFE supported 33 untrained teachers to attend teacher training; 27 attended in 1990; 13 in 1991 and 6 in 1992. In 1993 no teachers are to be supported to attend teacher training.

Now it is entirely up to the technical experts to transform themselves into professional teachers — the deliverers of quality products. The resources go into management and the huge machinery to generate statements of desired outcomes.

Ironically, on the one hand we have a million dollar *Staffing TAFE for the 21st Century* report (Hewett 1992) which recommends that TAFE teachers now need to be competent in:

- research to clearly identify client need
- the application of modern methodologies, incorporating both advances in technology and developments in educational theory
- a range of appropriate delivery modes
- the use of competency-based training principles and practices that focus on the learner's performance

- course articulation
- student-centred learning
- skill based training and assessment
- flexible student entry and exit points
- skills analysis/skill audits
- surveys
- industry skills assessment
- workplace trainer and assessor training
- customised training
- consultancy services (1992, 55).

On the other hand there are no dollars to train TAFE teachers in any of these things.

Further, the $30,000 internal report, *The Final Report of the TAFE Teacher Education Evaluation Project* (Fairhall and Boyd 1992) states as its first conclusion:

> The pervasive impression that the authors have derived from the present research experience is that the quality of teaching in those study areas of TAFE colleges which customarily use teaching staff who are not tertiary graduates . . . is only occasionally good, is generally mediocre and is often down right deficient . . . Lack of quality occurs right where it matters most, at the service delivery level.

In their efforts to appease the current leaders of the dominant coalition, vocational education and training administrators seem to have lost sight of the fact that there is more to effective learning than measurable and quantifiable curriculum models.

Conclusions

This paper has noted that a powerful coalition of peak bodies of the state, unions and business have pursued an economic agenda that has resulted in a radical restructuring of the vocation education and training system.

While agreeing that there was a need for fundamental reforms and the involvement of both labour and capital much more closely in vocational education and training, concerns are raised over the particular model chosen and the disenfranchisement of learners, teachers and small employers which this has led to.

It is not suggested that the coalition deliberately set out to achieve this situation — far from it. In fact the Labor Party and the union movement in particular appear to have set out to do exactly the opposite. However the adoption of positivist, economic rationalist, bureaucratic and corporate managerial values and procedures has given rise to a curriculum model that — while providing positive advantages for politicians and systems managers — discriminates against the learning process and hence teachers, learners and small employers.

It is interesting to note that the winners and losers in this situation can be seen to be exactly the reverse of those outlined in Thurlow's 1992 analysis of successful organisations. Thurlow argues that successful organisations have as their goals growth and

longevity and as such serve 'their employees first, their customers second and their shareholders third' (in Foyster 1992, 38).

How teachers, learners and small employers are able to gain ownership of what they are intimately involved in is probably one of the most important questions facing vocational education and training policy makers during the 1990s. For in the final analysis, as Collins (1991, 9) argues, 'the only perspective that really matters is at the delivery end where education and training is effected'.

Finally, I would like to return to the concern raised at the beginning of this paper over what the DEET/NTB model excludes from the vocational education curriculum. What has been silenced is knowledge and skills that do not fit the technocratic, scientific, rationalist paradigm. The only knowledge and skills deemed worthwhile possessing are those believed to be directly related to increasing economic productivity.

There is no space in the curriculum model for workers to think about themselves, their fellow citizens, society at large or even the world of work. Indeed there is no room for the future policy makers to begin to acquire the knowledge and skills to help facilitate the development of a less contradictory model of vocational education and training.

Our society is in such a state of cultural and societal malaise that its young males, for instance, suicide at a greater rate than they are killed in road accidents (Eckersley 1993, 9). As such there is a very real need to provide learners with the space to contemplate and begin to understand all of their society, not just the work related facets — even though work related facets need to be the main focus in any vocational education and training system.

References

ACTRAC (1992) *Member's Agenda Files* (Feb-Dec 1992). ACTRAC, Melbourne.

ACTU/TDC (1987) *Australia Reconstructed*. AGPS, Canberra.

ACTU (1991) *ACTU Policies and Strategies*. ACTU Congress, Melbourne.

Apple, M (1979) *Ideology and the Curriculum*. Routledge and Kegan Paul, London.

Billett, S (1992) Developing vocational skill in the workplace. *Australian Journal of TAFE Research and Development*. 8:1.

Bobbits, J F (1912) The elimination of waste in education. *The Elementary School Teacher*. 12:6.

Brady, L (1983) *Curriculum Development in Australia*. Prentice Hall, Collingwood.

Butterworth, P (1992a) *Report on Work-Based Learning: Practice and Facilities*. NSW TAFE Commission.

Butterworth, P (1992b) Is CBT the answer? *Australian Training Review*. No.4, 1992.

Carmichael, L (1991) Monkey Business. *TAFE Talk*. 17:4.

Carmichael, L (1992) *The Australian Vocational Certificate Training System (ESFC)*. AGPS, Canberra.

Chamber of Commerce and Industry. (1993) *M & E Training*. CCI 1/93.

Collins, C (1991) Effective Control of Post Compulsory Education or Effective Post Compulsory Education. *Canberra Bulletin of Public Administration*, No.67, November 1991, 135-143.

Collins, G (1992a) *Competency-Based Vocational Education and Training: Key Factors in the Establishment of the National System*. DEVET, Perth.

Collins, G (1992b) *Competency-Based Vocational Education and Training: The Reasons for Implementation*. DEVET, Perth.

Collins, G (1992c) *Competency-Based Vocational Education and Training: Administration of the National System*. DEVET, Perth.

Connolly, F M (1972) The functions of curriculum development. *Interchange*, 3, 2-3.

Coombs, H C (1990) *The Return of Scarcity*. Cambridge University Press, Cambridge.

Callahan, R E (1964) *Education and the Cult of Efficiency*. Chicago University Press, Chicago.

Dawkins, J (1991) Australia clever enough to be capable. Address to joint session of Australian College of Education and the Australian Council of Deans. Canberra, October 1991.

DEVET (1992a) *First Annual Report*. DEVET, Perth.

DEVET (1992b) *1992 Internal Telephone Directory*. DEVET, Perth.

Dewey, J (1916) *Democracy and Education*. MacMillan, Toronto.

Dormer , B (1983) *Report of the Panel of Review*. Technical Education Division, Perth.

Eckersley, R (1993) Facing the Future. *West Australian*. 9 January, 1993.

Evans, G and Butler, J (1992) Expert models and feedback processes in developing competence in industrial trade areas. *Australian Journal of TAFE Research and Development*, 8:1.

Fairhall, J and Boyd, I (1992) *Final Report of the TAFE Teacher Education Evaluation Project*. DEVET, Perth.

Ford, G W (1986) Reconstruction and Skill Formation: Developing Discussions on Concurrent and Integrated Changes. *Unicorn*, 14:4.

Foyster, J (1993) Review of Head to Head by Lester Thurow. *Australian Training Review*, 1: 93.

Fukuyama, F (1992) *The End of History and the Last Man*. Penguin, London.

Gortz, A (1989) *A Critique of Economic Reason. Verso*, New York.

Habermas, J (1976) *Communication and the Evolution of Society*. Heinemann, London.

Hazlewood, R (1972) Knowing the right people is the best way to land a job. *West Australian*. 17 November 1992.

Hewett, R (1992) Staffing TAFE for the 21st Century. *Australian TAFE Teacher*, 26:2.

Jackson, N S (1992) Reforming Vocational Learning? Contradictions of Competence. *What Future for Technical and Vocational Education and Training*. NCVER, Adelaide.

Jones, B (1982) Sleepers, Wake! *Technology and the Future of Work*. Oxford University Press, Melbourne.

Kinsman, M (1992) Competency based education in TAFE. *Australian TAFE Teacher*,26:4.

Little, G (1985) There is no decline. *CDC Magazine*. Curriculum Development Centre, Canberra.

Little, J W (1984) Seductive Images and Organisational Realities in Professional Development. *Teachers College Record*, 86:1.

Mathews, J (1989) *Tools of Change*. Pluto Press, Marrickville.

Meecham, R (1992) Trades and Labour Council of WA. *Competencies — The Agenda for Higher Education*. Proceedings of the Forum of June 8 1992, Curtin University Academic Board and Teaching Learning Group.

Murphy, M (1990) Competency based training: COSTAC working party Report. *Assessment and Standards in Vocational Education and Training*. TAFE National Centre, Adelaide.

Murray-Smith, S (1966) A History of Technical Education in Australia. Melbourne University, Doctoral Thesis.

National Training Board (1992), *Research into Workplace Training*. National Capital Printing, Canberra.

Owen, C (1992) Research into Workplace Training. *What Future for Technical and Vocational Education and Training*. NCVER, Adelaide.

Peters, R S (1966) *Ethics and Education*. George Allen & Unwin, London.

Pickette, R (1992) The national training reform agenda — the key role for industry. *What Future for Technical and Vocational Education and Training*. NCVER, Adelaide.

Ramsden, P (1991) Evaluating Teaching: Supporting Learning. Ed. B Ross. *Teaching for Effective Learning*. HERDSA, Sydney.

Rozenholtz, S J (1987) Educational Reform Strategies: Will they Increase Teacher Commitment? *American Journal of Education*. No.85.

Schoenfield, A H (1988) *Ideas in the Air*. Institute for Research on Learning, Palo Alto.

Stevenson, J (1992) Perception of Vocational Education Research: Relevance in the Eye of the Beholder. *Australian Journal of TAFE Research and Development*, 8:1.

Yeatman, A (1990) *Bureaucrats, Technocrats, Femocrats: Essays on the Contemporary Australian State*. Allen & Unwin, Sydney.

Young, M (1958) *The Rise of the Meritocracy*. Pelican, Harmondsworth.

Defining Professional Work

National Competency Standards for the Teaching Profession: A Chance to Define the Future of Schooling or a Reaffirmation of the Past?

Sharan Burrow

The credential and/or the reference are traditionally used to denote or affirm competence. While entry into the teaching profession in Australia predominantly requires a credential there are many fields of employment where historically that has not been the case. The explosion of knowledge and technology and the consequent rate of societal and work related change has generated an understanding in the ranks of employers that their very survival now depends on the skills of their workers and that those skills require ongoing development.

Career long development and training, an average of four different professions in a working life, and the rapidly changing nature of knowledge, skills and attributes required in all areas of employment constitute a massive educational challenge. At the heart of that challenge lies an assertion that credentials must reflect the nature and level of competence and that the notion of competence goes beyond the acquisition of academic knowledge.

With the disappearance of unskilled work and the increasing need for knowledge to be assimilated and adapted to solve specific problems, we face a demand for a genuine convergence of general and vocational education. Knowledge that cannot be applied has little or no value, nor indeed have specific skills which are not underpinned by a sound knowledge base. John Dewey, writing in 1915, promoted an integrated approach to learning, an approach which warned against the establishment of separate pathways for academic and vocational education (Dewey (1915) 1966). Such a warning now assumes a stark reality at this point in our history as we seek to re-establish appropriate links across all educational pathways.

During the late 1980s the development of a competency-based approach to vocational education and training attempted to integrate qualifications, skills and award

structures. This movement has been supported by formal structures established by the Commonwealth government. Structures and significant government decisions which support this current education and training agenda include:

- the establishment of the National Training Board (NTB)
- the establishment of the National Office of Overseas Skills Recognition (NOOSR)
- establishment of formal responsibility between NOOSR and the NTB in regard to the development of competency standards for the professions and higher education
- the Commonwealth Government's Mutual Recognition Bill and the Special Premiers' Conference Determination that competency-based standards should be developed for all occupations and professions by the end of 1992.

This formal framework of policy and structures has generated a maze of activity across business and industry as they seek to establish industry standards and from these agreed standards provide for associated training and assessment. The NTB is responsible for the registration of National Competency Standards (NCS) agreed to by a recognised Competency Standards Body (CSB). Each CSB is responsible for an individual industry or occupation. These bodies are representative of the industry parties and reflect an outcome of collaborative structures associated with Award Restructuring. For an individual the achievement of established standards requires them to demonstrate the competence as defined, and the educational support which underpins the acquisition of such competence is tailored to support development of explicit knowledge, skills and attributes. See Wheeler, in this collection, for a fuller elaboration of this policy framework.

The education community is divided by debate about the value and effectiveness of competency-based training. Some of the debate reflects a serious concern about the limitations of segmenting knowledge and narrowing assessment processes, while some protagonists reflect an unwillingness to accept the outmoded nature of most current academic assessment and credentialling procedures.

Business and industry is divided by debate about the value of industry versus enterprise standards and whether competency-based standards should be divorced from qualifications. This debate largely reflects an arrogance of groups of employers who do not wish to accept public responsibility and accountability for skill development of employees or acknowledge a futures orientation to the holistic nature of new competencies required for a desirable social and economic base.

Consensus across both layers of the debate must be such as to provide the capacity for a preferred future and must reflect the lessons of the Deweyan tradition. The divisions which reflect the current debate can be extended to the issue of competency standards for the teaching profession. Is this an opportunity for the profession to shape the future of teaching and learning by promoting examples of best practice or is it merely a trap by which we will be lured into a reductionist definition of teachers' work?

It is my view that the profession is not and should not be opposed to standards but rather we are rightfully opposed to standardisation. As a profession we have an

enormous pool of collective craft or professional knowledge, powerful knowledge, yet for the practitioner it is predominantly experiential and individual. This knowledge must be transcribed into case lore and be subject to constant review by the profession within a framework of professional values targeted to ensure rich and relevant learning experiences for all children. Any attempts to standardise or promote a technicist definition and/or narrow modes of assessment of teacher competence would fall short of this mark.

The challenge for the education community is thus to determine if it is time we established an agreed set of professional values against which we can define and assess competency standards. Are we mature enough as a profession to demystify the nature of our work, to define and promote its richness and complexity, and hence to establish the standards by which we can guarantee our students quality assurance? Is it possible to determine National Competency Standards for the teaching profession without being trapped by the reductionist experience of the fifties?

Both the teacher union leaders and the employer representatives who are involved as partners in the National Project on the Quality of Teaching and Learning (NPQTL) have determined that we have a responsibility to try. This responsibility is framed by a number of imperatives, one of the most significant of which is the imminent deregulation of the teaching profession via the Mutual Recognition Legislation. This was agreed to by all Premiers throughout Australia in the headiness of the era of 'new federalism'. There is a degree of consensus that these government heads did not intend that this legislation should apply to teachers, but the facts are that unless our industry is exempted or accepted as constituting extreme public risk, then this will be the case. The consequences could indeed constitute public risk if mutual recognition pertained to minimum standards set only by employers driven by budgetary constraints.

The context in which we consider the nature of teachers' work is a rapidly changing world. New management theories have a strong element of concern about people and their motivations, with the nature of work organisation and quality replacing the outmoded, ineffective and often inhumane nature of scientific management. Scientific management, characterised by specialisation, supervision and hierarchical control, is the term used to describe the theories of work organisation designed by notables such as Taylor and Gilbreth and translated into education as well as industry. For those among the education community who vigorously oppose education being influenced by business, it pays to remember that the influence of Taylorism in our schools, colleges and universities has been substantial. Callahan (1962) argues that this was the first in a long series of interventions related to the objective of making school management more like the management of business.

As corporate restructuring provides for the development of self-managing work groups who are responsible for their own planning, production and performance, it creates new demands. This form of work organisation requires additional knowledge

and skill for all involved. While our profession can point to best practice of which we can be proud, consider the dominant paradigm of the school as described by David McKinnon (1991):

- control of the learning process is still placed with the teacher and not the student
- fragmentation of the learning process occurs socially through streaming and technically through compartmentalisation of school subjects
- extrinsic rewards for work and achievement in the form of marks, grades, certificates, position in class, prizes and teacher approval remain predominant
- an uneven reward structure based on competition rather than cooperation in which success for some means failure for others prevails
- rule conformity is still highly valued as the normative basis of learning and school work
- hierarchical school organisation characterised by superordinate/subordinate relations between teachers and students, administrators and teachers, and between high and low status subjects continues to dominate school management.

Thus the nature and organisation of teachers' work is a key focus for the NPQTL and the National Schools Project is a major vehicle for supporting teachers as they rethink schooling. This work has a necessary partnership with the work of the NPQTL in two additional areas. The first is the development of a national professional body currently titled 'The National Teaching Council' and the second is the development of NCS for the teaching profession. It is the view of the Governing Board that the National Teaching Council ultimately would be responsible for maintenance and review of professional standards. It is on this basis that the Board had applied to Vocational Education, Employment and Training Advisory Committee (VEETAC) for temporary exemption from the mutual recognition legislation.

The process for the development of competency standards is still in its infancy. During 1991 five papers were commissioned to provide an information base on the applicability of competency based standards to the teaching profession.

At the end of 1991 a joint meeting of the Working Parties on National Professional Issues and Professional Preparation and Career Development sought to establish an agreed NPQTL position on NCS and their application to teaching. It was agreed that NCS could support improvements in the quality of teaching, and hence learning outcomes by providing a framework which would support career structures and award restructure.

Subsequently the Governing Board of the NPQTL resolved that the Working Party on Professional Preparation and Career Development should have responsibility for the development of NCS. The major task for this working party was to develop a draft set of competency standards for beginning teachers. An operational brief to guide processes for development of NCS for teaching was prepared to:

- ensure an understanding that the fundamental purpose of developing NCS is to enhance the quality of teaching and learning and hence student learning outcomes

- inform the processes of project management, including the consultant and the drafting of competencies
- set out guidelines for NCS development, including the Governing Board's decision to develop generic competencies for the beginning teacher for application at the end of initial teacher education and at the end of probation and the requirements that :
  - the articulation of a set of competencies must proceed from an understanding of the complexity and dynamic nature of teaching, a knowledge of principles of effective practice, a view of the teacher as professional practitioner and a recognition that competence resides in the appropriate exercise of professional judgement
  - teachers, their unions and employers, and teacher educators and their unions be involved and consulted through every stage of the development process (NPQTL Annual Report, February,1993)

Early discussion and consultation is reflected in the writings of Jim Walker, a member of the Working Party responsible for overseeing this work. The definition of competence associated with this work states that:

> The attributes (knowledge, skills and attitudes) which enable an individual or group to perform a role or a set of tasks to an appropriate level or grade of quality achievement (i.e. an appropriate standard) and thus make the individual or group competent in that role (Walker 1992, 1-2).

This definition acknowledges three key elements:

- attributes — a holistic approach to the integrated nature of knowledge and skill or competence
- performance — the professional opportunity to present a case for competence within a teaching learning context
- standards — the expectations of the profession in order that quality assurance might be provided for students.

The first of these elements predominantly underpins the work of three separate and distinct approaches studies of teachers' work undertaken in 1992. These studies were convened by William Louden, Schools Professional Development Consortium, Western Australia; Phillip Hughes, Tasmanian Centre for Advanced Teaching Studies; and Ken Eltis and Cliff Turney of the University of Sydney. The methodology employed by the Louden study was accepted as a basis for further work though it is true to say that to a greater or lesser extent all three studies have contributed and continue to contribute to discussion and debate supporting the next phase of development of NCS for the teaching profession. All consultancies involved consultation with the profession through workshops involving beginning and experienced teachers, teacher educators and representatives of the wider education community.

The consultants' final reports were received at the end of October 1992 and on the basis of Working Party recommendations, the Governing Board agreed in November that:

- NCS can be appropriately developed for teaching and can support improvements to the quality of teaching and therefore learning outcomes
- phase 2 of NCS development should proceed in 1993 to prepare an agreed and validated competency framework for teaching, supported by case studies; and that phase 2 would also include the development of standards, field testing and pilot projects to explore the implications for implementation of NCS for teaching (NPQTL Annual Report, February, 1993).

This work will be reviewed at the June meeting of the Governing Board. We are still faced with significant decisions aside from the initial nature of a set of competencies. Agreements concerning the purpose, the nature of assessment, the question of registration, the limited nature of the current guidelines of the NTB and the establishment of competency standards for experienced teachers as they reach career milestones are still to be reached. Clearly the nature and detail related to the establishment of standards for the teaching profession as we seek to ensure self-regulation will, for some time, remain the subject of debate within the education community.

The challenge for the education community is a significant one. We are faced with an historical set of circumstances which provides us with the opportunity to consider the future of the profession. That future must provide for the maturation of the profession in order that it can shape a re-learning culture for all education workers and their students, students who will be engaged in career long training and development. Can we meet the challenge posed by Dewey, more than 75 years ago, and provide for the convergence of academic or general knowledge and the tools that enable us to put that knowledge to work? Can these new imperatives, along with current knowledge and best practice, form the basis of a set of professional standards which shape a rich and valued future for education?

The challenge and the choice is in our hands.

References

Baldwin, P (1992) Opening Address to seminar on the Professions and Competency Standards, Australian Council of Professions, Canberra, 17th November.

Burrow, S (1992) Rethinking Schools for a Changing World, Paper 5. NPQTL (Forthcoming).

Burrow, S and Hamilton, P (1991) *Industry Restructure and its Implications for Education*. NPQTL, Canberra.

Callahan, R E (1962) *Education and the Cult of Efficiency: A Study of the Social Forces that have Shaped the Administration of the Public Schools*. University of Chicago Press, Chicago.

Connole, H (1992) Address to Independent Teachers' Federation Seminar Non-Teaching Staff in Schools. Adelaide, 7th December.

Connole, H (1992) *Development of Standards and Skills Accreditation for School Assistants/ Teachers Aides: Consultant's Final Report*. Techsearch Inc, Adelaide.

Dawkins, J (1989) *Improving Australia's Training System*. AGPS, Canberra.

Dawkins, J (1990) Foreword. In Gonczi, A *et al Establishing Competency Based Standards in the Professions*. National Office of Skills Recognition Research Paper No. 1. AGPS, Canberra.

Dewey, J (1966) *Democracy and Education*. Free Press, New York. (Originally published in 1915).

Eltis, K and Turney, C (1992) *Generic Competencies for Beginning Teachers*. NPQTL, Canberra.

Employment and Skills Formation Council, National Board of Employment, Education and Training (1989) *Industry Training in Australia: The Need for Change. Interim Report on Consultations*. AGPS, Canberra.

Hargreaves, A (forthcoming) Changing Teachers: Time, Work and Culture in Teaching.

Hughes, P *et al* (1992) Document A: Overview. *National Competency Standards for the Teaching Profession — The Beginning Teacher*. NPQTL, Canberra.

Louden, W (1992) National Competency Standards for the Teaching Profession: A Report Prepared for the National Project on the Quality of Teaching and Learning. NPQTL, Canberra.

Marginson, S (1992) Academic Education and Competency Reform. Paper prepared for the AARE/NZARE Joint Conference, 22-26 November.

McKinnon, D M (1991) Education in Change: Appraising the System. Charles Sturt University, Mitchell (Forthcoming).

National Training Board (1991) *National Competency Standards: Policy and Guidelines*. NTB, Canberra.

National Training Board (1992) *National Competency Standards: Policy and Guidelines. 2nd Edition*. NTB, Canberra.

National Project on the Quality of Teaching and Learning (1993) *Annual Report for 1992*. AGPS, Canberra.

NSW Department of School Education (1992) *Draft Teacher Entry-Level Competencies, Version 5*. NSW Department of School Education, Sydney.

Porter, P *et al* (1992) Competencies for a clever country: Building a house of cards?, *Unicorn* 18(3), 50-58.

Schools Council, National Board of Employment, Education and Training (1990) *Australia's Teachers: An Agenda for the Next Decade*. AGPS, Canberra.

Shulman, L S (1987) Knowledge and teaching: Foundations of the new reform, *Harvard Educational Review*, 57 (1) 1-22.

Walker, J C (1992) Competency-based standards in teaching: A general rational and conceptional approach. In Agenda Papers: Issues *Arising from 'Australia's Teachers: An Agenda for the Next Decade'*. AGPS, Canberra.

Competency Standards in the Professions and Higher Education: A Holistic Approach

Barbara Preston and Jim Walker

In less than a decade competencies approaches have come to dominate much of Australian public policy on education and training, industrial relations and micro-economic reform.

Competency-based approaches to education and work have a number of sources but two divergent ways of thinking stand out. These are, first, the efficiency movement of the 1920s, in particular the work of Frederick Taylor, which has developed into the influential and widespread 'behaviourist' approach to education and management, and, second, the progressive education movement, in particular the work of John Dewey in his book, *Democracy and Education* ((1915)1966), which has developed into what can best be described as the 'holistic' approach (Neumann 1979). The second, and rich, tradition is not often recognised.

The development of the competencies movement in Australia has its recent origins in attempts to solve particular economic, industrial relations and labour market problems. The approach, however, has been ad hoc. There was not first a thorough investigation of various different competency approaches and other alternatives which might help resolve the identified problems. Rather, the competencies movement evolved quickly in a context of practical urgency, with little opportunity for reflection. Thus the behaviourist approach, with its apparent simplicity, intelligibility, potential for comprehensive application, and its prevalence in vocational education around the world, became the basic model — though there have been significant measures to ameliorate some of its undesirable features. The behaviourist approach has also dominated the thinking of commentators, analysts and critics. But there is an increasing awareness of the inadequacies of such an approach, and a recognition that there are alternatives.

The introduction of competencies approaches to the professions has not occurred with the urgency and comprehensiveness of the introduction to other occupations. The

objectives of a competencies approach have differed among professions, and many professions have not seriously considered competency approaches for any purposes. The objectives for those professions which are involved have included a desire to develop career structures into professional work for some trade and technical occupations, the recognition of professional qualifications gained overseas, criteria for national registration, and the facilitation of interstate mobility.

The application of competency-based standards to the professions and higher education has become a matter of significant controversy. Many of the issues of concern have been also raised in reference to other occupations and to school and TAFE education. The current and potential ways in which competency-based standards can be conceptualised and used, and the nature of the possible impact of competency approaches on higher education and the professions are complex and diverse. There is no obvious or predetermined outcome. What does eventuate will be the result of the understandings and actions of many organisations and individuals.

In this chapter we first discuss the nature of competencies approaches before we look at developments in Australia involving higher education and the professions. We then consider the fundamental contradiction between the Format of the Australian Standards Framework and a holistic competencies approach which incorporates an understanding of knowledge (and other attributes) as having coherence and structure separable from the structure of competencies of which they are constituents. We suggest possibilities for overcoming this impasse, and discuss some of the positive potential of the application of a competencies approach to higher education and the professions.

What is a Competency-Based Approach?

A competencies approach can provide a common framework for developing and linking many aspects of work and education — work organisation; deployment; career structures; development and improvement of individuals, groups and workplaces; the labour market; credentials; research and development of the knowledge bases of occupations; curriculum development and assessment in initial and post-initial education; and individuals' and groups' access to education, training and work. It need not be limited in application to formal education and employment: it can be concerned with competence in all spheres of life.

A competencies approach can either be used to organise comprehensively the areas and relationships noted above, or it can have a partial or more limited role as a broad conceptual framework, a 'research backdrop', or a perspective to enrich the development of such areas. This continuum from comprehensive to partial or limited application of competency approaches can be crossed by the continuum from behaviourist to holistic competency approaches.

The characteristics of behaviourist and holistic approaches to competencies are

outlined in Table 1 which draws heavily from Walker (1992). The central definitions of the holistic competencies approach we are using are as follows:

> *Competence* involves the combination of *attributes* (knowledge, capabilities, skills, attitudes) structured into competencies which enable an individual or group to *perform* a role or set of tasks to an appropriate level or grade of quality or achievement (that is, an appropriate *standard*) in a particular type of situation, and thus make the individual or group *competent* in that role (Walker 1993, 94).

A holistic approach is very different from a behaviourist approach. It is consistent with current learning theory based on cognitive psychology (rather than behaviourist psychology), it incorporates an understanding of competencies as complex and structured, and constituted by personal attributes (such as knowledge) which have coherence and structure.

A holistic approach allows a perspective wider than individual performance. It takes account of the impact of group processes and culture on the level of performance and on the development and exercise of competencies. The surrounding culture, particularly the culture of the organisation in which the individual works, the culture and subcultures of the occupation or profession, and the home and community cultures of workers are of vital importance to performance (Nowlen 1988).

Most importantly, a holistic approach allows for the role of judgement in competent performance. It acknowledges what Pearson has called 'intelligent skill knowledge' — where performance requires 'insight, understanding and intelligence', and cannot be done routinely, without reflection (Pearson 1984, 37). Intelligent skill knowledge is what makes judgement possible. Judgement is what is required in the many situations where there is no one right answer, and it is a fundamental aspect of professional practice.

The complex variations in attributes or competencies of the same sort held by different individuals, the degrees of generalisability and specificity, and the infinite variety of possible applications of competencies indicate the inherent difficultly of specification and assessment by outsiders (though it has to be done for many purposes). Thus a central role must be given to self-assessment and judgement regarding the development and exercise of attributes and competencies. The capacity for effective self-management becomes itself a vital attribute to be developed and nurtured.

The attributes (such as knowledge) which constitute competencies can be given appropriate recognition and specification in a holistic approach. This is most important for purposes related to education and training because it is those attributes which need to be developed before (or as) they are transformed and combined to form competencies. It is a deficiency of traditional education that the focus tends to be limited to the development of attributes, and there is scant regard to the complex structuring of attributes into competencies and the exercise of those competencies. On the other hand, it is a deficiency of traditional competency approaches that they do not give significance to attributes and their underlying structure, especially in regard to education and training and assessment.

Table 1

Characteristics of Behaviourist and Holistic Approaches to Competencies: A Summary

	Behaviourist Approach	Holistic Approach
Nature of competencies and relations between competencies	Individual, specific, discrete defined in terms of behaviour only.	Competencies are complex combinations of personal attributes, enabling the performance of a variety of tasks. They form coherent 'structures of competence', and attributes have a distinct coherent structure.
Evidence of competencies	Direct observation of performance of relevant activities — assumed to give direct and clear indication of whether or not the competency is held.	A range of evidence may be sought, in general none can give certainty that relevant competencies are held. What evidence to use and what to make of it would be indicated by relevant theories.
Relation between knowledge and competencies	Required knowledge is inferred directly from behaviourally defined competencies.	Knowledge exists and can be understood separately from the exercise of competencies. Knowledge and understanding can be understood as having a complex and coherent structure.
Relation between competency statements and the education or training program	Competency statements indicate directly the content, structure and assessment criteria of education and training programs. There can be little diversity, local flexibility, experimentation and development.	There is broad coherence between structures of competence and education and training programs, and programs will generally have overall coherence. Programs can, however, be diverse in their structure and curriculum, be flexible, and involve experimentation and research.
Variation in specification of competency-based standards according to purpose	There can be little variation in the way standards are specified.	The way standards are specified can vary significantly according to purpose. In particular, for 'summative' purposes standards can be explicit and public, and assessment procedures rigorous, valid and reliable; for 'formative' purposes a more flexible and open approach is possible.

Competencies Approach for the Professions and Higher Education

A competency-based approach to vocational education and training, qualifications, and award structures began to develop during the late 1980s. After various overseas missions involving government, employer and union representatives (see for example, ACTU Development Council 1987; and Department of Industrial Relations et al 1988), working parties and formal consultations organised through the Employment and Skills Formation Council of the National Board of Employment, Education and Training (ESFC 1989), the establishment of the National Training Board (NTB) was announced in April 1989.

The NTB began operation in February 1990, and held consultations and investigations through 1990 leading to the publication of *National Competency Standards: Policy and Guidelines* in January 1991 (NTB 1991). Experience and consultations over the following period lead to an expanded and amended second edition released in October 1992 (NTB 1992).

The NTB is a tripartite body with employer, government and union representatives, and its role is:

> in consultation with industry, to endorse national competency standards for occupations and classifications in industry or enterprise awards or agreements determined by an industrial tribunal including entry level, operative, trade, post-trade, technician and para-professional classifications. The competency standards relate to essential core skills and additionally may relate to other components determined by industry sectors and/or states and territories for certification at any given level of occupation or classification (NTB 1992, 63).

The NTB developed a framework and format for competency-based standards. The Australian Standards Framework (ASF) 'is a set of eight competency levels which serve as benchmarks for the development and recognition of competency standards in relation to work across the Australian economy' (NTB 1992, 16). General descriptors are provided for each level from basic entry with no vocational training to the highest level of complexity, judgement, responsibility and accountability required in employment. Professional entry is generally expected to be at level seven. The specified format of standards covers units and elements of competency, performance criteria, range of variables, and 'evidence guide' (NTB 1992, 29-36).

The professions and higher education level vocational education were not directly included in the earlier stages of developing the competency-based approach in Australia. However, those developing the Framework believed that all levels of competency should be included especially to ensure the 'facilitation of articulation of competencies' (NTB 1990, 13), thus ensuring career paths, particularly from metal trades to engineering.

The NTB has not had a direct role in the development of competency standards for the professions. The task of facilitating the development of competency-based standards

for professions is carried out by the National Office of Overseas Skills Recognition (NOOSR) within the Department of Employment, Education and Training.

The establishment of NOOSR was announced by Minister Dawkins in April 1989 (Dawkins 1989, 44). NOOSR was seen as a significant element in the Government's National Agenda for a Multicultural Australia, and its current role in 'encouraging the development of competency standards in the professions and maintaining a register of professional competency standards' (Dawkins 1990) arose from its task of developing new procedures for the recognition for overseas qualifications which are 'based on non-disciminatory assessments and national competency standards, as these are progressively established' (Dawkins 1989, 42). When he announced the establishment of NOOSR its role appeared to be the recognition of the competencies of those who had undertaken vocational education and training overseas. However, a broader role quickly developed.

A key impetus came from the 'new federalism' discussions of 'heads of government' (State and Territory premiers and chief ministers and the Prime Minister) at Special Premiers' Conferences during 1990 and 1991. The concern was with greater consistency and coherence between the States and Territories, facilitating the mobility of labour, goods and services. Professions tend to have State level registration, and the criteria often varies significantly among the States. The heads of government determined to require 'mutual recognition' of qualifications, and where this was not appropriate, to apply national competency standards to assess the suitability for registration of professionals qualified to work in one jurisdiction but who did not meet the requirements of the jurisdiction to which they had relocated.

The second edition of the NTB Policy and Guidelines (1992) clarifies the relationship between NOOSR and the NTB, and the NTB's role regarding competency standards for the professions and higher education. NOOSR follows NTB Policy and Guidelines (including the Framework and Format) in its promotion of the development of national competency standards by the professions, and:

> Where standards are developed for professions, and for professional recognition, it will be for the professions concerned and the higher education institutions providing education for the professions to discuss and establish the relationship between these standards and education provided by these institutions. Endorsement of competency standards where delivery is by self-accrediting higher education institutions does not have the same effect on accreditation and delivery as in the vocational education and training sector (NTB 1992, 54).

About 20 professions are developing competency standards for a range of purposes, and some began to do so well before the establishment of NOOSR. For example, the nursing profession began the process of developing national competency standards as professional preparation moved out of hospitals and into universities, and as the profession sought a system to replace State-based registration with a national system.

NOOSR has published a series of monographs to assist professions with the

development and implementation of national competency standards (Masters and McCurry 1990; Gonczi et al 1990; Ash et al 1992; Heywood et al 1992). These generally promote an 'integrated approach' — one which seeks to combine general attributes (or generic competencies) with specific tasks and roles. This approach is broadly holistic, but it is expected to be implemented within the Australian Standards Framework and Format. This is, as we argue below, a contradictory position.

Concerns and Possibilities: Competency Approaches for Higher Education and the Professions

The debate about the relevance and applicability of competency standards to higher education has developed over the past year. Some concerns about coercion into the scheme were alleviated by the statement of the Commonwealth Minister responsible for higher education, Peter Baldwin, in November 1992 that, inter alia:

> There is no Government policy stipulating that competency standards must be adopted by professions or incorporated into higher education programs preparing students for the professions (Baldwin 1992, 6).

There remain concerns held by representatives of professions and higher education about the longer term intentions of the Commonwealth government, the implications of its 'Mutual Recognition Bill 1992', the matter of control over and utilisation of competency standards developed by or having direct implications for various professions, and ultimate control of higher education courses. These political and administrative matters need to be worked through, and though important are not considered in detail here.

More substantive concerns have centred on whether there is or can be a model of competencies which is not essentially behaviourist. We have argued that an alternative conceptualisation of competencies is possible. Many significant concerns about the application of a competencies approach to higher education are largely resolved if a holistic approach similar to the one outlined in this chapter is adopted.

However, significant concern relates to the use of the Australian Standards Framework and Format (NTB 1992) for the implementation of competencies approaches, including the 'integrated approach' for the professions. It is the fragmentation of knowledge and other attributes implicit in the Format which provides some of the basis of the position (of Penington 1992, and others) that a competencies approach is inevitably behaviourist and does not deal adequately with knowledge.

The 'integrated approach', like other holistic approaches, conceives of competencies as constituted by attributes including knowledge which can have a complex structure with great depth and breadth. However, the Format does not allow for the operational consideration of such structured knowledge. The Format accepts the role of knowledge ('underpinning knowledge will often need to be assessed in order to ensure that the person understands the "why" as well as the "how" ' (NTB 1992, 35)), but only in reference to one particular unit of competency at a time ('only that knowledge which is related to the required actual workplace performance outcomes of

the particular unit or element should be included in it' (ibid)). The Format's most general category is a 'unit of competency' (such as 'Satisfy Customer Inquiries'); this is broken down into 'elements of competency' (such as 'Provide relevant information') and for each element there will be a number of 'performance criteria' which provide evidence of the element of competency. It is only at this most specific level that knowledge itself can be considered. Knowledge can also be included in 'range of variables statements' and 'evidence guides' — the former indicating the limits of the domain under consideration, the latter concerned with evidence, not the specification of competencies or attributes themselves.

Thus there is no place in the Australian Standards Format for the notion of a coherent, structured knowledge base which might underlie or be incorporated in many (perhaps all) of the units of competency in a set of standards. A knowledge base can only be considered within the Format as broken up into the discrete bits which are understood to underpin each separate unit of competency (or each element of a unit of competency).

The problem can be illustrated by the knowledge of science which is incorporated in the competencies of a secondary science teacher. That knowledge needs to encompass the disciplines of science in depth and breadth; an understanding of their interconnections, relations with other areas of knowledge and cultural activity, and their various roles in society; how the teacher's understandings of science interact with the science curriculum, and how both these interact with the existing and developing understandings held by the students; how science relates to other subjects students are learning; how it fits into the structured practices and culture of the school, and so on. This interconnected complex of knowledge and understanding is involved in almost all the units of competency of that teacher's work — those covering planning, executing and following up lessons; interacting with students outside class; interacting with parents; working with colleagues and other members of the school community in developing the curriculum and culture of the school; evaluating his or her own work and developing strategies for improvement, and so on.

The task of adequately specifying the knowledge of the subject (science) involved in each of the elements of each of the units of competency for a secondary science teacher would be a very difficult and repetitive task — certainly significant aspects would be missed, much would be distorted, and important connections and relationships ignored. Knowledge of the subject they teach is only one of several essential areas of knowledge for teachers, and each of the major areas would be involved in most units of competency. Similarly, most units of competency would also involve major cognitive and social capabilities such as some of those listed by the Mayer Committee: collecting, analysing and using information; communicating ideas and information; planning and organising activities; solving problems; working with others in teams. More, too, would be required: dispositions and values such as enthusiasm, humour, respect for students and their communities; physical capabilities such as voice control and projection.

How can we resolve this problem of the inconsistency between the Format and the coherent, structured nature of the knowledge (and other attributes) required for professional work and much other work and activities in life? There are two possibilities.

The first is a stand-off. The preparation of a professional is seen to involve three stages or aspects — 'education', 'training' and 'experience'. This is more or less consistent with current divisions between, first, 'general studies' and/or 'discipline studies'; second, 'professional studies'; and, third, clinical or practical experience and the internship, induction or probationary period, extending into full professional practice. The competencies approach of the Format would be applied to the 'experience' period, and, perhaps, to aspects of the 'training' period. It would not be involved in the 'education' period. This would allow universities largely to avoid any involvement with competencies.

While an easy solution, this would have some significant detrimental consequences. It would mean that the positive potential of the application of a competencies approach to all of professional education (or other similar formal vocational education) cannot be reached: damaging divisions between theory and practice would be reinforced; the central professional abilities of being able to put knowledge into successful practice, and to further develop knowledge and understanding in the light of experience would be left to chance, as would the coherence of courses. Where the application of competency approaches does occur (for registration or career progression purposes, for example) there would be a continuation of the distortions in the treatment of knowledge (and other attributes) implicit in the operational structure of the Format. The existing and potential benefits of a serious treatment of knowledge and its application in action would be undermined. This would be consistent with the divisions reinforced between 'theory' and 'practice', thus supporting tendencies to denigrate much of what may be learnt at university and so supporting moves to downgrade the role of higher education in professional education (initial and continuing education) by ignoring and undermining existing and potential benefits from the serious treatment of knowledge and its application in action.

The second possible resolution involves two aspects. The first involves a restructuring and extension of the Format so that it does not ignore or distort the conceptualisation of knowledge and other attributes. This may not be an easy task. One possibility is to see each unit of competency as a 'slice' in a three (or more) dimensional matrix, with the other dimensions composed of major attribute types with a listing of various areas or categories within those types. For example, for school teaching one attribute dimension could cover the 'knowledge base' conceived according to the seven broad categories developed by Shulman: content knowledge; general pedagogical knowledge; curriculum knowledge; pedagogical content knowledge; knowledge of learners; knowledge of educational contexts; and knowledge of educational ends, purposes and values (Shulman 1987, 8), plus additional areas. Another dimension could cover various cognitive and social capability attributes including relevant Mayer 'key competencies'.

The attributes (knowledge, capabilities, dispositions, skills) would come together in different patterns of mixes in the various units of competency (such as the above examples for a science teacher), described in a way which recognises complexity, interrelatedness and variability.

Thus the attribute dimensions can be considered in their own right (so that, for example, the areas of knowledge listed above could be analysed for the purposes of informing curriculum development and assessment), and their coming together in the units of competency clearly recognised and open for investigation. The elements of competency can be specified and assessed in the way currently recommended within the Format, but the structured nature of knowledge and other attributes, and the way they can combine to constitute units of competency is not ignored, and is open to more detailed study. This model is similar to that developed by Burg, Lloyd and Templeton for medicine (outlined in Masters and McCurry 1990, 16-17). However, within this model knowledge is treated as a more substantial area, and, most importantly, attributes can be considered as coherent wholes rather than as discrete 'bits' that have been selectively incorporated into units or elements of competency. What is important is that the 'units of competency' of the Format do not constrain the understanding, development and assessment of underlying attributes.

This consideration of attributes in their own right implies the second aspect of this resolution — the possibility of moving away from a comprehensive competency-based model. This can be done to a greater or lesser extent, and in different ways. As we explained early in this chapter, competency approaches can be understood according to two distinct continuums — first, from behaviourist to holistic, and, second, from comprehensive application to limited or partial application. The simplicity of the behaviourist approach leads itself to easy comprehensive application. On the other hand, a holistic approach recognises the complexities of real learning, understanding, action and performance, and thus an exclusive and comprehensive competencies approach may become unwieldy and out of touch with reality — there can be more effective and efficient ways to achieve particular outcomes. Thus the competencies approach could be a constant 'backdrop' or perspective, but, depending on purposes and circumstances, a range of conceptual models, mechanisms, measures and criteria outside a strict competencies approach may be appropriate.

Having considered major concerns regarding the application of competency approaches to higher education, we want now to consider some of the significant positive possibilities of a holistic approach.

Once again, the central issue is the relationship between knowledge and practice. There has been a long standing tension between an academic discipline orientation and a 'hands on', practical orientation to professional work and evaluating professionals and professions. A critique of the academic orientation is the basis of much of what Walter Metgzer has called 'professionism'. For Metzger 'systematic attempts to attribute . . . undesirable trends to the rise of professions' have resulted because of the professions'

use of the mystique of their esoteric knowledge (which is not seen as particularly relevant to effective practice) for gate-keeping, and maintaining status and power (Metzger 1987, 13). Many critiques in this influential tradition have made pertinent points. In a recent article published in the *Harvard Educational Review*, David Labaree (1992) argues that teacher educators (that is, university academics) are working in opposition to the interests of teachers and quality school education in their promotion of teacher professionalism based on an enhanced role for research-based university teacher education. Labaree's critique of university education, university research and the traditional university view of the 'knowledge base' of teaching would strike a chord with many teachers: research repeatedly finds little satisfaction with their initial professional preparation in higher education among teachers (for example, Batten *et al* 1991, 16).

Labaree's critique and his implicit solutions fit within the simple dichotomy contrasting the 'academic' with the' practical'. A holistic competencies approach has the potential for breaking this impasse — to the benefit of both the work of the professions and to university education and research. The division between the 'academic' or the 'knowledge-based' and the 'practical' has meant that the complexity of knowledge-in-action, and the challenge of integration of many different domains and forms of knowledge for effective practice, has been overlooked. The 'practical-minded' have not wanted to give a major role to high level knowledge, and the 'academically-minded' have given little value to knowledge which cannot be written or spoken in internationally recognised forums. Yet it is just such complex knowledge-in-action involving higher level and situation-specific judgements which is the essential characteristic of professional practice (and is important in many occupations and spheres of life).

Glen Evans (1992) has developed a model of 'competence in action' which indicates its complexity, how a range of forms and areas of knowledge are involved, and the dynamic nature of knowledge (and competence) as feedback, reflection and self-management come into play. The use of such a model to understand the application of knowledge enriches and gives meaning and relevance to university studies. It helps form the knowledge base and its development in ways which can be effectively applied. Thus practitioners are less likely to feel that university courses are irrelevant and did not give them what they 'really needed'. They will have benefited more from the course, be more competent and less alienated from academic studies and the university as an institution. They will be more willing to work collaboratively with university staff in research and professional education curriculum, and their contribution will be more valuable, coming as it does from knowledgeable reflective practitioners. Thus the role of professionals (individually and collectively) in the development of the knowledge base, and thus the curriculum for their profession, is enhanced. A competencies approach provides both the substantive role and a mechanism for their involvement.

The academic unions, FAUSA and UACA, have argued for the importance and value of undermining the 'anachronistic' distinction between knowledge and skills:

> Vocational training and education in most fields has increasingly emphasised higher order understandings . . . (and) generalist education has increasingly emphasised real-world problem-solving in its pedagogical method.
> This convergence is one of the most important features of contemporary changes in work organisation and in education. As such it is one of the key issues for assessing the outcomes of higher education, and it is central to the question of quality . . .
> The essential feature of the notion of competency . . . is that it brings together knowledge and skills. For too long occupational training has been dogged by an overly narrow view of the skills required for the performance of occupational tasks, to the neglect of the knowledge-base underlying the application of those skills (FAUSA and UACA 1992, 40).

The integration of the academic and the practical implies collaboration between academics and practitioners. The coherence of courses required by a competencies approach which is based on an understanding of competencies as flexible and variable, but structured and coherent, and constituted by attributes which themselves have a coherence and structure, implies a greater collaboration among those involved in developing and teaching a course. As Gerald Grant put it:

> Faculty . . . often change their primary reference group from that of the 'invisible college' of their disciplinary peers throughout the nation to that of their immediate colleagues in the local institution, including new 'colleagues' who are often practitioners in the fields that students will enter . . . Course planning is no longer the province of the individual teacher or the teachers' disciplinary guild. The process of curriculum revision and course design in competence-based programs often leads to a coordinated syllabus (Grant 1979, 13-14).

The possible cost of such coordination and seeking after course coherence is that the challenges, excitement and enthusiasm of courses based on staff members' particular research interests is lost. Absolute adherence to coherence and coordination may be stultifying. However, this dilemma already exists in higher education. A holistic approach is consistent with variation and flexibility, and it recognises that enthusiasm and scholarship are themselves attributes and competencies to be encouraged and modelled. Coherence is not an absolute value. The point is simply that a lack of coherence needs to be justified.

It should be clear from the above that coherence and the integration of the academic and the practical can involve the whole of the course of professional preparation, not just what is usually considered professional and practical studies. This provides a significant challenge for higher education and the professions, which has rich potential. The extent of the challenge is indicated by the fact that best developed, practice-oriented approach to initial teacher education, 'reflective teaching', which developed largely out of the original work of Schon (1983) on reflective professional practitioners, is (in the United States at least) almost exclusively concerned with the

specifically 'professional education' components of the initial teacher education programs, and 'little progress has been made in integrating reflection into the general studies or speciality area components' (Valli 1992, xxv).

A holistic competencies approach, with its ultimate focus on doing — knowledge-in-action — rather than passive knowing, has implications for pedagogy. These are consistent with recent research in cognitive psychology as well as the older Deweyan educational theory. As Kathryn Crawford and Christine Deer (1991) have pointed out, there has been a paradigm shift in theories about learning: from a focus on the teacher as authoritatively transmitting a body of knowledge to a focus on the learner as actively constructing knowledge as a result of experience (pp.6-7). Professionals may know about how they should (or would like to) approach their work, but their actual practice may not reflect this. Instead actual practice may be derived more from their own life experiences and cultural practices than from professional training. To be able to put theoretical understandings into practice requires a more active, more practical, less passive pedagogy in which student learning is concerned with a depth of understanding which thoroughly but critically connects the new understandings with the complex of existing understandings (tacit and overt) and ways of doing things, and with the contexts of its application. Such pedagogical approaches are applicable to all educational programs, not just the clinical or practical phases or aspects of professional education, and they are applicable to all professions and other occupations — not just teaching. They are especially applicable where what is to be learnt is complex, counter-intuitive, or contrary to received wisdom and conventional practice.

Crawford and Deer argue forcefully that it is essential for the teacher education process to result in a break with deeply held, popular views of a 'good teacher'. They note that student teacher expectations, their evaluations of the teaching they receive, and their beliefs about how their own teaching should develop 'will reflect their longer experience of teaching and of traditional modes of teaching in other faculties' (1991,6). It is a substantial task for teacher educators to bring about this break. The appropriate pedagogical model is to give students 'experience in being taught and teaching in different ways so that the process of internalising an alternative professional rationale is facilitated' (p9, emphasis in original).

As well as the models of teaching and learning, many other aspects of teachers' professional work require substantial breaks with accepted and dominant understandings and practices. Such aspects include the 'increasing tendency for the teaching workforce to become teachers of all, rather than instructors of the able' (Schools Council 1990, 29); and issues related to Aboriginal education, multiculturalism, and gender equity, among many others. This indicates the flaws of a simple workplace-based approach to professional education (typical of some traditional competencies approaches), where immersion in ongoing practice reinforces an uncritical acceptance of that practice. Yet a critique of such practice which is abstract and unconnected (like much traditional higher education) is usually futile. A competencies approach provides

a valuable framework for overcoming this impasse not only in teacher education but in other professional and nonprofessional courses.

There are many other potentialities and challenges of a competencies approach to higher education and the professions. For each purpose or situation the benefits or costs of a competencies approach needs to be considered on its merits. The flexibility of the approach we have outlined allows for this.

References

Australian Education Council and Ministers for Vocational Education, Employment and Training, Australia (1992) *Putting General Education to Work: The Key Competencies Report.* (Mayer). Melbourne.

Ash, S, Gonczi, A, and Hager, P (1992) *Combining Research Methodologies to Develop Competency-Based Standards for Dietitians: A Case Study for the Professions.* National Office of Overseas Skills Recognition Research Paper No. 6. AGPS, Canberra.

Australian Council of Trade Unions, and Trade Development Council (1987) *Australia Reconstructed.* Report of the ACTU/TDC Mission to Western Europe. AGPS, Canberra.

Baldwin, P (1992) Opening Address, Seminar on the Professions and Competency Standards, Australian Council of Professions, Canberra, 17 November.

Batten, M *et al* (1991) *Recently Recruited Teachers: Their Views and Experiences of Preservice Education, Professional Development and Teaching.* AGPS, Canberra.

Crawford, K and Deer, C E (1991) Do We Practice What We Preach? Putting Policy into Practice in Teacher Education. Paper presented at the Annual Conference of the Australian Teacher Education Association, Melbourne, 7-10 July.

Dawkins, J (1989) *Improving Australia's Training System.* AGPS, Canberra.

Dawkins, J (1990) Foreword to Gonczi, A; Hager, P; and Oliver, L *Establishing Competency-Based Standards in the Professions.* National Office of Skills Recognition Research Paper No. 1. AGPS, Canberra.

Department of Industrial Relations, Metal Trades Federation of Unions, and Metal Trades Industry Association Mission to UK, Sweden and West Germany (1988) *Towards a New Metal and Engineering Industry Award.* MTIA and MTFU, Sydney.

Dewey, J (1966) *Democracy and Education.* Free Press, New York (originally published in 1915).

Employment and Skills Formation Council of the National Board of Employment, Education and Training (1989) *Industry Training in Australia: The Need for Change.* Interim Report on Consultations. AGPS, Canberra.

Evans, G (1992) Competence, Competencies, and the Knowledge Base of Beginning Teachers. *Journal of Teaching Practice,* 12(1) 81-98.

Federated Australian University Staff Association and Union of Australian College Academics (FAUSA and UACA) (1992) Quality in Higher Education in Higher Education Council. *The Quality of Higher Education.* AGPS, Canberra.

Gonczi, A, Hager, P and Oliver, L (1990) *Establishing Competency-Based Standards in the Professions.* National Office of Overseas Skills Recognition Research Paper No. 1. AGPS, Canberra.

Grant, G (1979) Implications of Competence-Based Education. In Gerald Grant *et al On*

Competence: A Critical Analysis of Competence-Based Reforms in Higher Education. Jossey-Bass, San Fransisco.

Heywood, L, Gonczi, A, and Hager, P (1992) *A Guide to Development of Competency Standards for Professions.* National Office of Skills Recognition Research Paper No.7. AGPS, Canberra.

Labaree, D (1992) Power, Knowledge and the Rationalisation of Teaching: A Geneology of the Movement to Professionalise Teaching. *Harvard Educational Review,* 62(2) 123-54.

Masters, G, and McCurry, D (1990) *Competency-Based Assessment in the Professions.* National Office of Overseas Skills Recognition Research Paper No. 2, AGPS, Canberra.

Metzger, W P (1987) A Spectre is Haunting American Scholars: The Spectre of Professionism. *Educational Researcher,* 16(6) 10-19.

National Training Board (1991) *National Competency Standards: Policy and Guidelines.* National Training Board, Canberra.

National Training Board (1992) *National Competency Standards: Policy and Guidelines (Second Edition).* National Training Board, Canberra

Neumann, W (1979) Educational Responses to the Concern for Proficiency. In Gerald Grant, *et al On Competence: A Critical Analysis of Competence-Based Reforms in Higher Education.* Jossey-Bass, San Fransisco.

Nowlen, P M (1988) *A New Approach to Continuing Education for Business and the Professions.* National University Continuing Education Association, New York; Collier Macmillan, London

Pearson, H T (1984) Competence: A Normative Analysis. In E C Short (Ed.) *Competence: Inquiries into its Meaning and Acquisition in Educational Settings.* University of America Press, Lanham, New York & London.

Penington, D (1992) What Do We Mean by Tertiary Education? The University Perspective. An address to the National Conference on What Do We Mean by Tertiary Education, Melbourne, 16 December.

Schön, D A (1983) *The Reflective Practitioner.* Basic Books, New York .

Schools Council (1990) *Australia's Teachers: An Agenda for the Next Decade.* AGPS, Canberra.

Shulman, L S (1987) Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review,* 57(1) 1-22.

Valli, L (1992) *Reflective Teacher Education.* State University of NY Press, Albany, New York.

Walker, J C (1992) The Value of Competency Based Education in John Hattie (Ed.) *The Effects of Competency-Based Education on Universities: Liberation or Enslavement?* A monograph based on a Conference jointly sponsored by The University of Western Australia and Murdoch University, October.

Walker, J C (1993) A General Rationale and Conceptual Approach to the Application of Competency-Based Standards to Teaching. In Schools Council, *Agenda Papers: Issues Arising from 'Australia's Teachers: An Agenda for the Next Decade'.* AGPS, Canberra.

Areas of Competence for Teachers — The NSW Scene

Christine Deer

The context for this paper is 'the domination of competency-based education and training in national policy debates over the last two years' (Porter, Rizvi, Knight and Lingard, 1992). These debates in regard to teacher education follow some of the changes that have taken place in the United Kingdom and the United States. The development of a set of areas of competence for beginning teachers by the NSW Ministerial Advisory Council on Teacher Education and the Quality of Teaching provides something of a case study of how 'teacher competencies' debate is being played out in NSW.

Background

In NSW four influences appear to have set the agenda for the debate on developing a competency-based approach to teacher education. These are work on professional standards for teachers in the United Kingdom and the United States; the work of the NSW Teacher Education Council (NSWTEC); the work of the NSW Department of Education's Teacher Qualification Advisory Panel (TQAP); and the Macarthur Lecture delivered by the Minister at the Macarthur Campus of the University of Western Sydney in November 1991.

In the United States various groups and States have been active in reviewing standards for the teaching profession. The National Board for Professional Teaching Standards, a voluntary registration board, produced the document *Toward High and Rigorous Standards for the Teaching Profession. Initial Policies and Perspectives of the National Board for Professional Teaching Standards* (National Board for Professional Teaching Standards, 1990). The very title of the document is a statement of dissatisfaction with existing standards. The work of this Board was brought to the attention of the NSW Department of School Education by James A Kelly, President and Chief Executive Officer of the Board who visited NSW in 1990 to address invited audiences.

The level of concern in the United States is illustrated by the founding, in the mid-

80s, of 'The Holmes Group 'representing more than 100 education faculties in universities in the United States concerned to improve the quality of teacher education courses. This group produced *Tomorrow's Teachers* (The Holmes Group, 1986) which emphasises the importance of the quality of teachers and the value of research in changing practices. In commending the work of The Holmes Group, Beyer (1988, 37) writes:

> The teacher is the linch pin of educational improvement in our schools. Thus teacher preparation is to be valued for the ways in which it can enhance the competence of the practitioner. Moreover, the quality of teaching is determined the authors say, by the quality of student learning that results. As the primary aim of teaching, levels of learning can be utilised in assessing both practitioners and programs for preparing them.

In the United Kingdom changes in education included the introduction of a National Curriculum for England and Wales in 1986 and the greater centralisation of curriculum development which removed many of the powers of the Local Education Authorities. The formation of the Council for the Accreditation of Teacher Education (Department of Education and Science, 1989) set out requirements for initial teacher education for both primary and secondary teachers. Like similar moves in the United States, the council signalled changes in teacher education with greater specification of appropriate initial teacher education courses.

The NSWTEC, originally named the NSW Teacher Education Conference, has a membership consisting of senior administrators and teacher education faculty. Initially membership came from the former College of Advanced Education sector in NSW and the ACT but in 1987 their counterparts from the university sector were invited to join the group.

From 1989 because of the increasing rate of change in education, and teacher education in particular, the executive of this Council had regular meetings with departmental officers, officers of the NSW Board of Studies; the two teacher unions, the NSW Teachers Federation, the Independent Teachers' Association, and with officers of the Department of Employment, Education and Training (DEET). These meetings helped forge increasingly close partnerships between teacher educators, teacher employers and the unions and paved the way for developments in the practicum. These developments began with the University of Newcastle and the University of New England — Northern Rivers in 1990/91 and in 1992 included new agreements with the Charles Sturt University —Mitchell and the University of Technology, Sydney. These new partnerships provided students with an extended period in schools in the final years of their teacher education courses. This enabled students to develop in depth their areas of competence. They also showed the value of political action as the voice of teacher educators began to be heard in State and Federal government circles working in concert with the teacher unions. As a result of these partnerships new contractual arrangements governing the operation of the practicum were signed by the NSW Department of School Education, the NSW Teachers' Federation and the universities concerned.

The NSW Department of School Education has long had a concern with the recognition of qualifications of teachers prepared overseas. Its committee on the recognition of overseas teacher qualifications, TQAP, included representatives of the teacher unions, teacher educators and departmental officers. During 1991 this committee considered briefly a draft document on *Teacher Entry Level Competencies Areas* which had been developed by officers of the Department. The publication of the Finn report (1991), and the development of the Mayer (1992) and Carmichael (1992) reports gave further impetus to the development of areas of competence for teachers by officers from the NSW Department of School Education.

In November 1991 the Minister, Virginia Chadwick, delivered what has come to be known. as her Macarthur Lecture to an invited audience at the University of Western Sydney — Macarthur. One section of this lecture focused on future directions in teacher education and her plans for a 'number of very significant improvements in the teacher education and employment area' (Chadwick, 1991, 11). Her plans were largely based on changes proposed, or in operation, for teacher education in the United Kingdom and in parts of the United States. In regard to areas of competence for teachers she stated in the Macarthur Lecture that:

> All teacher education programs set out to equip their students with teaching competencies.
>
> Many programs do this well and their graduates are comprehensively equipped to teach. There is however, rightly or wrongly a community perception that some programs do not give sufficient emphasis to the of basic teaching competencies. We have all heard the complaints from teachers — even in recent times — that their teacher education courses did not prepare them for the actualities of teaching in the modern classroom.
>
> We must ensure that the essential and broad professional competencies are integral to all teacher education programs.
>
> We will therefore be reformulating our employment requirements to include a record of achievement in the essential broad teaching competencies.
>
> This move is consistent with broad trends across the education and training sector.
>
> . . . Where once it was enough to say that the graduate had spent the required time studying any specific area, now it is generally accepted that a defined level of competence in that area should be demonstrated (Chadwick 1991, 14).

The Formation of MACTEQT

In February 1992 the Minister released her *Teacher Education Action Plan* (NSW Office of Education and Youth Affairs, 1992). The NSWTEC executive had worked with the Ministry on earlier drafts of this paper as they had done with the previous paper *Teacher Education Directions and Strategies* (NSW Ministry of Education, Youth and Women's Affairs, 1990) . . .

The *Teacher Education Action Plan* included the following statement about areas of competence for teachers:

> a sound grasp of teaching subject matter for both primary and secondary teacher education students remains a matter of priority, balanced with essential and broad professional teaching competencies. The Plan uses strategies to formulate clear understandings and definitions of these competencies — the knowledge and skills that all beginning teachers should have — and to determine whether beginning teachers have attained those competencies' (NSW Office of Education and Youth Affairs 1992, 5).

It was with this background that the Minister formed a Ministerial Advisory Council where all groups would meet around the one table providing a forum for policy advice. The advisory council is officially called the NSW Ministerial Advisory Council on Teacher Education and the Quality of Teaching (MACTEQT). Proposed changes in the United States and the United Kingdom, and evident in the Macarthur Lecture, can now be seen to form the Terms of Reference for MACTEQT (1). MACTEQT had its first meeting in May 1992.

MACTEQT is a large council of 36 members chaired by the Director-General of the NSW Department of School Education. Its membership was designed by the Minister to include the professional, industrial, education and community perspective on teacher education. and the quality of teaching. The executive of the NSWTEC, in discussions with the Minister before the press release announcing the formation of MACTEQT, had recommended a smaller group and an independent Chair.

The membership of MACTEQT includes:

- 12 teacher educators who are the nominees of the Vice-Chancellors of each of the NSW universities and the two ACT universities (although the Australian National University has no teacher education courses)
- a nominee of the NSWTEC
- a nominee of
  - — the Director-General (the Deputy Director-General)
  - — the Ministry
  - — the President of the NSW Board of Studies
  - — the Catholic Education Commission
  - — the Association of Independent Schools
  - — the Managing Director of NSW TAFE
  - — the two teachers unions — the NSW Teachers Federation and the Independent Teachers Association
  - — the Parents and Citizens Association
- three teacher representatives from government and non government schools
- a nominee from the Joint Council of NSW Professional Teachers' Associations
- nine nominees of the Minister.

It is notable that there is no representative of the Ethnic Communities Council or

other similar organisation even though there are increasing numbers of students in our classrooms from non-English speaking background.

The following meeting plan was given in the agenda papers for the first meeting of MACTEQT:

12 June	Beginning teacher competencies
14 July	Guidelines for teacher educators to have recent school experience
19 August	Alternate pathways into the NSW Teaching Service
14 September	Current programmes for preparing teachers
15 October	Strategies for ensuring commitment to improving standards.

It can be seen from this plan that very little time was to be allowed for discussion in the three-hour meetings.

The Process of Development of Areas of Competence for Beginning Teachers

At the first meeting of MACTEQT in May 1992 there was a preliminary discussion of the document *Draft Teacher Entry-Level Competencies. Version 5* (NSW Department of School Education, 8 May, 1992). It was agreed that this, together with other material including Chapter 3 of *Australia's Teachers An Agenda for the Next Decade* (Schools Council, 1990) and material from Professor Eltis of the University of Sydney on competencies would be sent to members for discussion at the June meeting.

At the June meeting there was extensive discussion of the issues of competency standards for beginning teachers. Key issues included:

- Should we have competency standards for beginning teachers and if so how would they be used?
- If competency standards for beginning teachers were introduced who would assess them?
- Should it be the teacher educators in the universities before they give the relevant awards?
- Should it be the employers during the probationary year?
- How could such standards be applied validly and reliably across employers?
- What training would be provided for the assessors?
- How would such standards be enforced given that universities have their own procedures for reviewing the courses they offer and for establishing new courses?

The outcome of the June Meeting was the establishment of a Working Party to develop a new document on areas of competence for beginning teachers. The document which had been produced by the NSW Department of School Education (8 May, 1992) was deemed unsuitable by many as it broke teaching tasks into a checklist.

The Working Party was chaired by the writer and included:

- Ray Cavenagh from the NSW Teachers Federation
- Renata Kaldor, one of the Ministerial nominees
- Dr Jim McMorrow a nominee of the Minister on the Council

- Ms Gillian Shadwick, the Director of Human Resources in the NSW Department of School Education
- Professor Jim Walker of the University of Canberra
- Allan Young, Deputy Principal of Homebush Boys High School
- An executive officer to the Council who provided secretarial assistance.

I have detailed this sub-committee membership to show that it was broadly representative.

In developing a set of areas of competence for beginning teachers, the Working Party drew on *A Charter for Teaching* (Schools Council, NBEET (1990, 60-62), the Departmental document *Draft Teacher Entry-Level Competencies. Version 5* (NSW Department of School Education, 8 May 1992) and Turney, Eltis, Towler and Wright (1986) *The Teacher's World of Work.*

The Working Party accepted Walker's (1992, 1-2) definition of competence:

> The attributes (knowledge, skills, attitudes) which enable an individual or group to perform a role or set of tasks to an appropriate level or grade of quality or achievement (ie an appropriate standard) and thus make the individual competent in that role.

This definition highlights the three elements of competence namely:

- attributes — that is knowledge, skills and attitudes
- performance
- standards.

It is important to note the distinction between 'competence' and 'competency'. The latter is defined as:

> The ability to perform the activities within an occupation or function to the standard expected in employment (NTB 1991).

The Working Party reported to the July meeting of MACTEQT. During the discussions that followed the Areas of Competence for Beginning Teachers (MACTEQT 1992) were refined to the following six:

- The Ethics of Teaching
- The Content of Teaching
- The Practice of Teaching
- Management in Classroom/Schools/Centres
- Interaction with Parents and The School Community
- Professionalism and Professional Development.

As an example of one of these areas the sub divisions of Professionalism and Professional Development were outlined:

> Beginning teachers should
>
> (a) understand the responsibilities and obligations of belonging to the profession of teaching
>
> (b) acknowledge their responsibilities for their continuing professional development

(c) appreciate the collegial nature of teachers' work and be able to work effectively as members of a team
(d) have knowledge of the framework of law and regulations that affect teachers' work
(e) have knowledge of current educational issues (MACTEQT, 1992).

The Working Party and indeed the whole Council were most concerned that beginning teachers have both knowledge of content and the knowledge of how to present that knowledge to pupils — what Shulman (1986) terms 'pedagogical content knowledge'.

Discussions at Council meetings during August, September, and October further refined the Areas of Competence and there was consensus that the six areas of competence that had been identified were appropriate and comprehensive. With this policy advice the Minister tabled the document at the September meeting of the Australian Education Council (AEC) which referred it to the National Project on the Quality of Teaching and Learning (NPQTL). The NPQTL had earlier established the importance of further work on areas of competence for teachers.

There was also increasing concern during MACTEQT meetings that those outside the membership, most notably teachers, needed to comment on the draft statement. With this end in mind a Dissemination Working Party was established to determine the consultative process for the *Beginning Teacher Competency Framework* document. This group was chaired by Professor Tony D'Arbon of the Australian Catholic University and included all members of the earlier Working Party as well as Terry Chapman, nominee of the Catholic Education Commission.

At the October meeting of MACTEQT it was agreed that, following the report of the Dissemination Working Party, a covering letter by the Director-General would accompany the document. This letter invited comment on ways the framework might be used in preservice and inservice teacher education and on the criteria for the appointment of Advanced Skills Teachers. Respondents were also invited to comment on the areas identified and any perceived gaps or further suggestions of areas to include. All interested parties were invited to send responses by 1 March 1993 to the Executive Officer of the Committee.

Discussion

There are continuing concerns amongst many stakeholders in teacher education on the whole enterprise of specifying areas of competence for teachers. These centre on the identification and use of such areas of competence. They are therefore important ideological positions which underpin this debate. All believe, however, that graduates of initial teacher education courses in universities should be competent teachers.

Despite continuing discussions in MACTEQT on how the *Areas of Competence for Beginning Teachers* would be used, no answers have so far been obtained. Many teacher educators do not see how areas of competence for any teachers can be defined without clear understanding of how they will be used. Reference to the Macarthur

Lecture (Chadwick, 1991) and the Teacher Education Action Plan (NSW Office of Education and Youth Affairs, 1992) indicate the intention for beginning teachers to *demonstrate* their competence.

The importance of the definition of a 'beginning teacher' is therefore vital. Is such a person one already employed? If that is the case the assessment of competence, and the consequences of that assessment, are the responsibility of the employer. The universities would then be in the position of using the areas of competence as a guide in their preparation of teacher education courses. Each university has its own well documented set of procedures for introducing new courses and revising existing courses. If a university's graduates did not continue in employment, that university would need to revise its courses if it wanted its students to be employed in the future.

Professor Yerbury, Vice Chancellor of Macquarie University (1993, 3) in her Opening Address to the Fifth National Practicum Conference stated:

> All parties will be asking how to get the best value out of the practicum. It has perhaps not been valued by many in university and government communities in the way that on-campus work has been valued.
>
> It needs to be seen as a 'different way of knowing', as an integrated and essential component of professional education . . .
>
> We must also ask what kind of knowledge base is needed by new entrants to these people-oriented professions, and whether that base can be characterised exclusively through lists of skills and competencies.

The Vice-Chancellors of Australian universities have been drawn into the debate about areas of competence for teachers.

While MACTEQT has as part of its brief 'the definition of the essential teaching competencies for beginning teachers' (MACTEQT, May 1992), questions about the relationship of these competencies to those of teachers already in employment were raised in some way during all of the 1992 meetings. Teachers who have been employed for some years will always outnumber new graduates, and for quality assurance in a system there must be a clear relationship between the expected competencies of the novice and the expert. The Mayer Committee (1992) recommended three different levels of performance for its set of key competencies and a similar procedure could operate with the teaching profession. However it is now clear that at present NSW is not committed to the implementation of the Mayer proposals:

> The final position will depend on the outcome of consultations and in particular on the advice of the Curriculum and Assessment Committee of AEC in relation to the integration of the proposed key competencies into the existing and developing curriculum (Chadwick 1992).

Teaching is a holistic activity and the breaking down of the areas of competence into a checklist will not reflect the complexity of the profession. The areas of competence for beginning teachers that have been developed by MACTEQT have so far avoided this pitfall. Evans (1992, 82) makes this point well in his attempt to unify both

the conceptual and performance aspects in competency-based systems. Trent (1992) argues the difficulties in the use of competency-based standards in assessing the qualifications of overseas trained teachers, emphasising the enormous diversity in courses undertaken by these teachers.

Porter *et al* (1992, 50) sum up the views of many:

> While we do not disagree that the current system of education needs reforming, we do not accept that the current relentless march towards 'one best solution' is either appropriate or desirable. We live in a society that is increasingly diverse, diffuse and disorganised and a narrowly framed instrumentalist education is not likely to serve our youth or our nation well. We fear important reforms based on a 'competencies house of cards' will collapse with the deck. Finally, all education and training is about much more than the world of work. Perhaps it is time to reconsider the educational agenda in terms of its cultural and social, as well as its economic orientation. We fear that the current economic essentialism will be detrimental to a better Australia for all.

The next months will show the outcomes of the consultation process on areas of competence for beginning teachers in NSW. If these areas of competence are not seen as valuable by teachers and able to be implemented by employers, they are likely to fail.

At the State and Federal levels of government there is now recognition of the need for further debate about competency standards for teachers.

The Federal Minister for Employment, Education and Training, for example, in his statement *Teaching Counts* (Beazley 1993, 8) said:

> Teaching is a profession requiring a sophisticated array of skills and attributes, nevertheless, teacher education is not antithetical to a competency-based approach. Of utmost importance, is ensuring that the issue of competency standards is widely debated throughout the profession.

The three MACTEQT meetings planned for 1993 — one already held in March, and the meetings planned for May and July — have a huge agenda. As a forum for policy advice for the Minister, the Council is working well. The Minister has a means of consulting the relevant parties and can use this advice as she pleases to determine policy in teacher education. Universities can use the list of areas of competence already devised as a guide in the development and review of their courses for initial teacher education. In the context of Federal/State relations in education, the meetings of MACTEQT in 1993 will determine the future of the document *Areas of Competence for Beginning Teachers*.

Notes

1. Terms of Reference for the NSW Ministerial Advisory Council on Teacher Education and the Quality of Teaching

I. The Council's terms of reference will be to advise the Minister on:

- matters relating to the preservice teacher education, induction and ongoing professional development of teachers

- matters relating to the quality of teaching in NSW schools
- matters relating to the advancement of teaching as a profession
- ways of coordinating advice from all relevant sectors with an interest and involvement in Teacher Education in New South Wales.

Within these guidelines, the Council will provide advice on matters referred to it by the Minister and on other issues considered to be of importance.

The Council will provide a forum through which the profession and the broader community can influence directions and initiatives relating to teacher education and teacher quality.

II. The Minister's first reference to the Council is for it to provide advice to her on:

(i) The definition of the essential teaching competencies for beginning teachers.

The extent to which these essential competencies will equip students to meet the educational needs of the full range of students in NSW schools, ie students with disabilities; students from non English speaking backgrounds; Aboriginal students; poor students; isolated students both boys and girls.

Ways in which Teacher Education Institutions could report on individual trainee teachers' performance in these competencies.

(ii) Guidelines to assist teacher education institutions meet the requirement that for programs to be acceptable for the preparation of teachers in the NSW Teaching Service, teacher educators have significant recent experience in schools. These guidelines should give practical substance to the requirements outlined in her Macarthur Address in November 1991.

(iii) Alternative pathways into the NSW Teaching Service: to allow mobility of teachers between sectors (including TAFE) and States; to allow appropriate recruitment of overseas teachers; to promote entry into the teaching profession of people with experience in other industries/professions.

(iv) The extent to which existing teacher education programs are preparing teachers adequately to teach the NSW school curriculum K-12.

(v) Strategies to encourage a wide and ongoing commitment within the profession to the improvement of standards in teaching competencies.

The Council will provide advice on (i) and (ii) by the end of June to allow the broad implementation timetable set out in the Macarthur address to be met.

Advice on (iii), (iv) and (v) should be ongoing and regular over the first year.

III. Given the importance of these referred matters, the Council will be set up initially as a large body to allow wide representation. After twelve months the composition of the Council will be reviewed in the ight of its effectiveness and its future tasks.

IV. The Chairperson of the Council will be Dr Ken Boston the Director-General of the NSW Department of School Education.

Secretarial support to the Council will be provided by the Ministry of Education and Youth Affairs.

The Council will meet six times a year and will report regularly to the Minister (MACTEQT, May 1992).

References

Beazley, K C (1993) *Teaching Counts: A Ministerial Statement* AGPS, Canberra.

Beyer, L E (1988) *Knowing and Acting: Inquiry, Ideology and Education Studies*. The Falmer Press, London.

Carmichael, L (1992) *The Australian Vocational Certificate Training System*. Report to AEC and MOVEET. AGPS, Canberra.

Chadwick, V (1991) Macarthur Lecture — Address delivered at the University of Western Sydney — Macarthur.

Chadwick, V (1992) NSW Response to Mayer Committee. Statement by the Hon. Virginia Chadwick Minister for Education and Youth Affairs and Minister for Employment and Training.

Department of Education and Science (1989) *Circular No 24/89. Initial Teacher Training: Approval of Courses*. Her Majesty's Stationery Office, London.

Evans, G (1992) Competence, Competencies, and the Knowledge Base of Beginning Teachers. *The Journal of Teaching Practice*, 12(1) 81-89.

Finn, B (Chair) (1991) *Young People's Participation in Post-Compulsory Education and Training*. Report of the Australian Council of Review Committee. AGPS, Canberra.

Mayer, E (Chair) (1992) *Employment-Related Key Competencies for Post-Compulsory, A Proposal for Consideration, (2nd Report)*. The Mayer Committee, Melbourne.

Ministerial Advisory Council on Teacher Education and the Quality of Teaching (1992, May) *Terms of Reference*.

Ministerial Advisory Council on Teacher Education and the Quality of Teaching (1992, October) *Areas of Competence for Beginning Teachers*.

National Training Board (1991) National Policy Standards and Guidelines, National Training Board, Canberra. Cited in Department of Employment Education and Training *A Guide to Development of Competency Standards for Professions Research paper No 7*, AGPS, Canberra.

National Training Board (1992) *National Competency Standards Policy and Guidelines Second Edition*. National Training Board, Canberra.

NSW Department of School Education (1992) *Draft Teacher Entry-Level Competencies. Version 5*. NSW Department of School Education, Sydney.

NSW Office of Education and Youth Affairs (1992) *Teacher Education Action Plan*. NSW Office of Education and Youth Affairs, Sydney.

Porter, P, Rizvi, F, Knight, J and Lingard, R (1992) Competencies for a Clever Country: Building a House of Cards? *Unicorn*, 18(3) 50-58.

Schools Council, National Board of Employment, Education and Training (1990) *Australia's Teachers An Agenda for the Next Decade*. AGPS, Canberra.

Shulman, L S (1986) Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, 15(2), 1-14.

The Holmes Group (1986) *Tomorrow's Teachers*, The Holmes Group Inc. East Lansing.

Trent, F (1992) Competency-based Standards and Overseas Trained Teachers — What are the Issues? *The Journal of Teaching Practice*, 12(1) 99-106.

Turney, C, Eltis, K J, Towler, J and Wright, R ((1986) 1992) *The Teacher's World of Work*. Sydmac Academic Press, Sydney.

Walker, J (1992) A General Rationale and Conceptual Approach to the Application of Competency-Based Standards to Teaching. A Paper Prepared for the National Project on the Quality of Teaching and Learning. University of Canberra Centre for Research in Professional Education, Canberra.

Critique

The Psychology of Competency-Based Education

Gordon Stanley

Introduction

The competency-based education (CBE) movement has found support in Australia as part of the overall microeconomic reform agenda whereby there is an increasing emphasis on efficiency and effectiveness, on costs and outcomes. There is an interest in the 'bottom-line' or the simplest way of assessing performance against objectives. At one level the movement for CBE may not appear all that different from current practice. Most educators specify 'hoped-for outcomes, followed by specifications in terms of course requirements of how to fulfil them' (Grant 1979, 6).

However the advocates for CBE are stressing the innovative elements of the movement. Their claims are not helped by the fuzziness of their basic concepts. The terms 'competence' and 'competency' are being used in somewhat imprecise ways such that there is often little consistency in usage across the different policy documents advocating the introduction of CBE. At times one senses a certain linguistic trick is being played. After all, who of those concerned with education is not interested in 'competence'? Even in the USA where the competency movement has been in action for a longer period there is confusion about what is meant by competence. As Grant (1979) has commented 'Perhaps no word has been used more frequently in recent years with less precision than *competence* (p 2)'.

The introduction of CBE is being pushed without much analytic discussion of what CBE involves. It is almost as if the past reservoir of knowledge about learning and achievement does not exist. The key publications from the Mayer Committee are remarkable for the absence of reference to the professional and technical literature on competency-based education (Mayer 1992). It is as if the professional and technical issues are mere details which can be dealt with easily in the implementation phase. Such confidence is expressed in the ability to resolve these matters that it is proposed to develop an inservice training program for teachers which will be computer-based.

But important lessons can be learned from the considerable body of literature on

CBE and from considering CBE in the the light of existing research and knowledge of the psychology of learning and its outcomes. Grant (1979) defines CBE as it has emerged in American education:

> Competence-based education tends to be a form of education that derives a curriculum from an analysis of a prospective or actual role in modern society and that attempts to certify student progress on the basis of demonstrated performance in some or all aspects of that role. Theoretically, such demonstrations of competence are independent of time served in formal educational settings (p 6).

Essentially the Australian CBE movement has accepted a similar definition. The Finn review (Finn 1991) attempted to specify employment related key competencies for school leavers:

> The Committee considered it important and urgent to go well beyond a simple listing of essential competencies, although getting the list right is a high priority. It is the Committee's view that the Key Competencies should not only be listed but should be given depth of meaning and content. The operational significance for schools and the training sector must also be made explicit.
>
> The way to achieve this is to identify the competencies and the major strands or elements within each; develop each Competency Area into a standards framework or profile; explore ways of assessing and reporting levels of achievement; and establish standards or benchmarks (Finn 1991, 55).

The agenda is stated in a clear and straightforward manner. Its recommendations seem to imply that if criteria for achievement were made more explicit then systems will be able to deliver. What is disappointing about the Finn report is its lack of analysis of the causes of the apparent shortfall in achievement levels in the domains considered important. The underlying model does not acknowledge the reality of individual differences and their importance in setting appropriate goals. Many of the variables determining outcomes in education are beyond the control of educators. Others can only be addressed with appropriate resources.

In some domains it is not yet possible to specify the solution to achieve near universal (90 per cent) performance of competence across a range of skills. For example, while universal literacy has been accepted as a desirable goal in the past it is still not achieved at a level of competence considered necessary. As an area it has probably had the greatest investment of education research and development resources, but remains elusive as an achievement for many people. Part of the reason for failure can be attributed to inadequate resourcing of support programs in the primary years and part to the need for better application of research and development.

Competencies as Achievements or Abilities?

The Finn Committee defined six key areas where all post-compulsory education and training programs should include appropriate levels of competence:

- language and communication

- mathematics
- scientific and technological understanding
- cultural understanding
- problem solving
- personal and interpersonal.

The report noted that competencies would need to be developed in these areas and the task was passed to the Mayer Committee. This latter committee then developed a framework for key competencies emphasising that the set of key competencies 'should be confined to those capabilities that are essential for young people entering any sector of work in the future'. The list was as follows:

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others in teams
- using mathematical ideas and techniques
- solving problems
- using technology.

There is a shift in emphasis from the Finn list of *areas* in which competence should be achieved (achievements) towards competencies as *generic 'capabilities'* or abilities. The shift indicates that rather than look simply at educational achievements in given areas for their own sake, such achievements should be assessed additionally in terms of how they reflect the operation of the underlying generic abilities.

One of the difficulties with emphasising general abilities or generic competencies as educational outcomes is that they may be more dependent on the relative contributions of individual differences which people bring to the task of learning than on the direct outputs of instruction. The Mayer list looks similar to the lists of abilities which, for years, differential psychologists have been working with as they have tried to unpack various constructs of intelligence, ability and achievement.

Specificity versus Generality of Ability

The question of the 'breadth' of ability is one which has been of considerable interest to cognitive psychologists. The traditional idea of general ability, which was unquestioned for much of this century, has more recently been decomposed into a range of broad generic abilities (Gardner 1983). For instance, the psychometric and neuropsychological evidence indicates that verbal and visual-spatial skills are not part of a more general ability (intelligence) but are independent of each other and need to be considered different, indeed orthogonal factors of ability. This means that performance in one domain is unconnected to ability in the other domain. Models of educational outcome which seek common benchmarks need to face the fact that achievement at some benchmark of competence in verbal skills may not always be achievable by someone who is able to exceed a 'comparable' benchmark performance in mechanical skills.

Other generic abilities may be neuropsychologically independent in the same way.

Often employers complain about the unevenness of educational achievement in individuals without recognising that this 'unevenness' may be more a reflection of inherent individual ability patterns than educational experience. People who excel in verbal skills may have limited achievements in certain practical visual-spatial skills and vice versa. Education systems should provide the maximum opportunities for individual development, but cannot, by the nature of human cognition, eradicate individual differences in ability patterns.

Within the ability literature, efforts to specify basic cognitive processes that have generality have been inconclusive. Investigators have found low correlations of memory performance across different types of material and methods of testing suggesting that there may be no such thing as a general memory ability (Kelley 1964). The neuropsychological literature indicates that procedural memories are independent of declarative memories (Squire and Zola-Morgan, 1988). Annett (1986) has further demonstrated that skill in a motor task, such as doing the breast stroke or tying shoes, has no relation to the ability of the individual to describe what he or she is doing. This evidence implies caution should be exercised in attempts at generic specification of ability.

The literature from differential psychology implies that it may be harder to specify generic competencies in a reliable and valid way than envisaged by Mayer. Carroll (1992) points out that:

> Establishing an ability, or a measure of that ability, is . . . in the first instance a problem of determining what kind of tasks, and what attributes of those tasks, should be involved in its measurement. It is also a problem of determining whether the measure has certain characteristics, for example, high homogeneity and reliability, according to the psychometric model. . . . As yet few of the traditionally recognized abilities have been subjected to this kind of analysis (p 267).

Carroll's conclusion reached, after many decades of ability research, is somewhat sobering to those who consider valid measurement can be easily attained for the Mayer-type competencies.

The Competence/Performance Distinction

Performance on tasks (often referred to as specific competencies in the CBE literature) is taken to be evidence of generic competence in an area. Measurable behaviours are taken as indicators of the hypothetical construct of competence. This distinction between competence and performance is an old distinction in the psychology of learning. Carroll (1979) has pointed out that individuals can use many alternative optional processes or strategies in test performance, so one has to be careful in inferring particular competencies from such performance. Generally such inferences become less reliable as one moves from simple to complex tasks.

The Mayer Committee has eschewed a concept of competencies which could be 'explained or inculcated through the use of behaviourist learning theories which rely on low-level drill and reinforcement' (Mayer 1992, 5). It is easy to reject the crass nature of behaviourist-inspired assessment. However the examples given by the Mayer Committee of performance criteria at different levels, such as 'being able to cut carpet according to given dimensions and then lay it' and 'being able to manage a variety of clerical responsibilities', necessarily focus on specific behavioural acts. While the rhetoric of the Mayer reports is unexceptional, the problems in resolving all the issues of definition, measurement, comparability and validation are non-trivial and should lead to some caution about the enterprise.

Providing an appropriate form of assessment which does not distort the curriculum (from content issues towards testing and evaluation) is not an easy task, if American experience is any guide. On the basis of such experience, King (1979) comments:

> Some educators may think that few assessment problems exist in competence-based programs because they stress 'doing' and performance. They may complacently assume that if a student can do a task then he has achieved competence. Such complacency grossly oversimplifies assessment by means of performance. Subjective judgments may vary among assessors, resulting in diminished reliability, just as the actual performance of the student may vary at different times, thus introducing the problem of which performance 'counts'. . . (p 495).

Competence and Expertise

CBE tends to be concerned with setting minimum standards. This emerged from its origins as a movement which was driven by concerns over perceptions about the failure of contemporary education rather than a concern for the development of excellence (Grant 1979). The problem of minimal standards is not overcome by the introduction of three distinct levels as proposed by Mayer. Levels of mastery in most areas of knowledge would not be adequately differentiated by such gross categorisation.

Recent cognitive psychology has been looking at how expertise is generated by comparing the performance of novices with experts and seeing the extent to which people can acquire expertise (Ericsson and Smith 1991). Reviewing this literature Snow and Swanson (1992) conclude that:

> . . . different domains may promote the development of different kinds of aptitude; in each, experts become adapted to its specialized styles of learning and thinking. Acquiring expertise means becoming more and more different from novices, *but also more and more different from experts in other domains* (p 587).

The research on expertise shows that experts have a vast body of specific knowledge on which they draw to generate efficient performance (Olson and Biolsi 1991, 241). Lacking this specific body of knowledge, novices appear to be constrained largely by being unable to determine which pieces of information are relevant to their tasks and how different kinds of information are interrelated (Salthouse 1991, 293).

Such conclusions are important in that they stress the necessity of focusing on knowledge acquisition in becoming competent rather than on the demonstration of generic abilities or general problem solving and learning strategies. As Gagne, as far back as 1965, pointed out:

> Knowing a set of strategies is not all that is required for thinking: it is not even a substantial part of what is needed. To be an effective problem solver, the individual must somehow have acquired masses of structurally organized knowledge. Such knowledge is made up of content principles, not heuristic ones (p 170).

This is a relevant message for implementation of the Mayer program. It would be unfortunate if teachers were encouraged to deviate from the task of building up organised knowledge in their students towards an emphasis on the development of heuristics as implied by the need to demonstrate generic competencies.

The development of expertise and excellence in focused areas is self-motivating for students. It is not desirable for students to spend their whole career attempting to develop a standard list of competencies rather than being encouraged to develop their strengths. Bruner aptly expressed concern about having too standard an agenda for educational achievement:

> We get interested in what we get good at. In general, it is difficult to sustain interest in an activity unless one achieves some degree of competence. Unless there is some meaningful unity in what we are doing and some way of telling how we are doing, we are not very likely to excel ourselves. Yet surely this too is only a small part of the story, for everybody does not want to be competent in the same activities, and some competencies might even be a source of embarrassment to their possessors (Bruner 1966, 118-19).

Transfer of Training

The issue of transfer of training is of considerable significance to education. Researchers in metacognition and adaptive intelligence (for example, Sternberg 1985) stress the acquisition of general problem solving strategies which allow transfer of training from one situation to another. Their focus is on the acquisition of 'tacit knowledge' which indicates internal approaches to problem solving, how individuals cope with new situations and their adaptation to changes in their environment, as well as their attempts at shaping their own environment. While the approach has its enthusiasts, there is insufficient evidence that students who take tacit knowledge courses actually improve in tranferring knowledge when confronted by standardised tests (Jacobson 1992).

Anderson (1983) has developed a model of learning as domain-independent and relatively simple in process. He views differences between domains as due to differences in the usefulness of general heuristics and in the organisation of productions. The theory has been tested in the development of computer tutoring programs in complex but well-defined skills such as computer programming, generating geometric proofs and solving algebraic equations. As the instructional principles in the tutoring programs

derive from a general theory of skill acquisition, Anderson holds that there can be an effective separation of pedagogical strategies from domain knowledge. While these applications have been quite successful, the generality of the model beyond defined skill application has yet to be evaluated.

The expertise literature demonstrates clearly that there are domain specific skills which are not easily transferred across domains. Such skills are used by experts to provide efficient problem solution. In the absence of specialised knowledge, non-domain specific skills are used involving what has been termed 'weak' problem solving strategies and include generate-and-test procedures, trial-and-error search, means-end analysis and problem reduction (Anzai 1991, 65). From the perspective of this literature, these generalisable basic principles which transfer across situations are useful only because one does not know anything specific. They allow weaker solutions than those derived from expert knowledge.

A key issue in the use of generic competencies, such as problem solving strategies, is to know when they will work. This requires content knowledge. Holyoak (1991) has pointed out that reasoning by analogy is a central mechanism in transfer of knowledge. Analogical thinking requires retrieval of useful analogies from memory and then matching elements from the known situation to the new situation to identify productive correspondences.

However the use of analogies in learning and problem solving is not straightforward and can result in serious misconceptions. Spiro et al (1989) have argued that simple analogies which help novices to obtain a preliminary understanding of difficult and complex situations may later become significant impediments to fuller and more correct understandings. They indicate that multiple analogies need to be tested through a process of imaging and checking the productive features of the analogs against performance criteria. It is the context-bound, domain-specific knowledge that allows the rejection of inadequate solutions. The ability to transfer solutions to new situations is dependent upon the knowledge base possessed by the individual (Vosniadou 1989, 434).

The message from the literature on transfer of training is that the idea of general strategies or competencies has been oversold. They are no substitute for the building up of knowledge bases in specific domains. The evidence emerging from a number of recent cognitive analyses is even stronger. It suggests that ways of thinking applicable for one domain of knowledge may be inapplicable in another (Snow and Swanson 1992).

Mastery versus Guided Discovery

When looked at in the context of contemporary models of instruction CBE is best characterized as involving a 'mastery' learning paradigm as opposed to 'guided discovery' (Snow and Swanson 1992). The mastery learning approach involves the teacher in developing a pathway involving a progressive sequence of skills through appropriate tasks. There is close control on the learner through performance monitoring

and regular feedback. It is a very successful approach to acquiring proceduralized skills. Contrasting with this model is a guided discovery situation in which the individual is encouraged to explore by taking control of their own learning, and assistance is given when needed. In this situation the learning is less structured and closed.

The mastery paradigm tends to produce students who can reliably attain specific goals within given domains provided nothing unexpected happens. The guided learning paradigm produces someone better prepared to make an appropriate response to a situation which contains a degee of unpredictability. However as Snow and Swanson (1992) point out this 'dichotomy oversimplifies, glossing over other treatment variations' (p 588).

Conclusion

Aspects of CBE find support in contemporary learning theory and cognitive science. Nevertheless such research confirms that the process of learning and the interrelationships between ability, instructional paradigm and knowledge domains are complex, as are outcomes. Such findings imply that we have not reached a stage where one model should be given priority status over others.

The current literature on learning and instruction suggests that any attempt to impose a strong evaluative structure on the secondary or TAFE curriculum to give priority to a common set of generic competencies should be approached with caution. There appears to be good grounds, from existing cognition research, to be sceptical about the likely efficacy of the generic competencies enterprise in the form currently proposed by the Mayer report.

References

Anderson, J R (1983) *The Architecture of Cognition*. Harvard University Press, Cambridge.

Annett, J (1986) On knowing how to do things. In H Heuer & C Fromm (Eds) *Generation and Modulation of Action Patterns*. Springer-Verlag, Berlin.

Anzai, Y (1991) Learning and use of representations for physics expertise. In K A Ericsson and J Smith (Eds) *Toward a General Theory of Expertise*. Cambridge University Press, Cambridge.

Bruner, J (1966) *Toward a Theory of Instruction*. Harvard University Press, Cambridge.

Carroll, J B (1979) How shall we study individual differences in cognitive abilities? — Methodological and theoretical perspectives. In R J Sternberg and D K Detterman (Eds) *Human Intelligence*. Ablex, New Jersey.

Carroll, J B (1992) Cognitive abilities: the state of the art. *Psychological Science*, 5, 266-270.

Ericsson, K A and Smith, J (1991) (Eds) *Toward a General Theory of Expertise*. Cambridge University Press, Cambridge.

Finn, B (1991). *Young People's Participation in Post-Compulsory Education and Training*. AGPS, Canberra.

Gagne, R M (1965) *The Conditions of Learning*. Holt Rinehart, New York.

Gardner, H (1983) *Frames of Mind: The Theory of Multiple Intelligences*. Basic Books, NewYork.

Glaser, R and Bassok, M (1989) Learning theory and the study of instruction. *Annual Review of Psychology*, 40, 631-66.

Grant, G (1979) Implications of competence-based education. In G Grant *et al* (Eds) *On competence*. Jossey-Bass, San Francisco.

Holyoak, K J (1991) Symbolic connectionism: toward third-generation theories of expertise. In K A Ericsson and J Smith (Eds) *Toward a General Theory of Expertise*. Cambridge University Press, Cambridge.

Jacobson, R L (1992) Research on different ways of being smart leads to 6-year project on teaching and learning 'practical intelligence' in schools. *The Chronicle of Higher Education*, 39, A9-10.

Kelley, H P (1964) Memory abilities: a factor analysis. *Psychometric Society Monographs*, 11,1-53.

King, S E (1979) Assessment of competence: technical problems and publications. In G Grant *et al* (Eds) *On competence*. Jossey-Bass, San Francisco.

Mayer, E (1992) *Putting General Education to Work: The Key Competencies Report*. Australian Education Council, Melbourne.

Olson, J R and Biolsi, K J (1991) Techniques for representing expert knowledge. In K A Ericsson and J Smith (Eds) *Toward a General Theory of Expertise*. Cambridge University Press, Cambridge.

Salthouse, T A (1991) Expertise as the circumvention of human processing limitations. In K A Ericsson and J Smith (Eds) *Toward a General Theory of Expertise*. Cambridge University Press, Cambridge.

Snow, R E and Swanson, J (1992) Instructional psychology: aptitude, adaptation, and assessment. *Annual Review of Psychology*, 43, 583-626.

Spiro, R J; Feltovich P J; Coulson, R L and Anderson, D K (1989) Multiple analogies for complex concepts: antidotes for analogy-induced misconception in advanced knowledge acquisition. In S Vosniadou and A Ortony (Eds) *Similarity and Analogical Reasoning*. Cambridge University Press, Cambridge.

Squire, L R and Zola-Morgan, S (1988) Memory: brain systems and behavior. *Trends in Neurosciences*, 11, 170-75.

Sternberg, R J (1985) *Beyond IQ*. Cambridge University Press, Cambridge.

Vosniadou, S (1989) Analogical reasoning as a mechanism in knowledge acquisition: a developmental perspective. In S. Vosniadou and A Ortony (Eds) *Similarity and Analogical Reasoning*. Cambridge University Press, Cambridge.

Competence: A Game of Smoke and Mirrors?

Nancy Jackson

Competency-based education and training (CBE/T) is the subject of an intense and somewhat puzzling controversy, not only in Australia but also in Great Britain, Canada and the United States. The controversy is intense because the stakes are large; the outcome will shape entire systems of public and private provision of learning in a wide variety of settings. It is puzzling because faith in the competency paradigm persists, even proliferates, despite the considerable weight of international criticism piled up against it. According to its opponents, the competency approach has been shown to be a 'theoretically and methodologically vacuous strategy' for upgrading an education and training system (Hyland 1992, 35). For its supporters, it remains 'as close to a panacea for educational ills as one might find . . .' (Fagan 1984, 8). How are we to understand this disparity?

I will argue that past battles over competency-based approaches to education and training have had limited impact because they have been waged on the 'wrong' grounds. That is, competency measures have primarily been praised or criticized on a range of issues related to their adequacy as a method of organising classroom instruction and assessment. Those in favour have argued that a focus on 'competencies' makes instruction clear, precise and consistent, and makes assessment objective and democratic (Jessup 1989; Spady 1980; Hall and Jones 1976). Those opposed argue that the same approach is narrow and reductionist, and fails to reflect the nature of meaningful knowledge or purposeful action (Cantor and Roberts 1986; Collins 1987; Short 1984). I don't dispute the importance of these debates in thinking about the quality of teaching and learning experiences. Nor do I discount the significance of the attempts being made to respond to these criticisms by incorporating a broader concept of competence into the competency framework (Mayer 1992; Wolf 1989; Mansfield 1989). However, I will argue that educational adequacy is not the major criterion on which the competency paradigm will stand or fall, in Australia or elsewhere.

By contrast, I want to draw attention to the power and sophistication of competency regimes as a political and managerial solution to problems of contemporary govern-

ance, both within educational institutions and beyond them in a larger public policy process. Examined from this standpoint, competency measures can be seen to provide a comprehensive and transformative approach to education and training policy and practice which is enormously attractive to contemporary reformers. Not only does it promise to provide more clearly defined goals, and to produce more consistent outcomes, but it attempts more fundamentally to restructure the social relations of the educational field, 'its discourse, practices . . . and principles of power [and] control' (Moore 1987, 228). In this context, the steady advance of the competency 'bandwagon', across several continents and under quite disparate political administrations, can be seen as less a mystery than a triumph of 'corporatist rationality' (Collins 1991).

In this brief paper I will attempt to make visible how, and in whose interests, the competency approach functions as a regime of governance. Drawing on experiences that should be broadly familiar to many educators, particularly in the TAFE system, I will demonstrate how CBE/T transforms the relations of both curriculum design and program administration, using an elaborate documentary information system through which the educational enterprise can be defined, measured and evaluated in the interests of employers, administrators and policy makers. I will argue that these arrangements lead to a profoundly ideological practice of vocational/technical education, and one that concerned and committed educators would be 'well advised' to avoid (Ashworth and Saxon 1990, 18).

Competence as Ideological Practice

In arguing that competency regimes are a form of ideological practice, I do not wish my argument to be confused with the elitist positions being taken in the Australian debates by some conservative opponents of competency measures (for example, Pennington 1992). Indeed the Australian Labor Party did not invent the competency approach; on the contrary, the version of it being imported to Australia is distinctly Thatcherite in origins and sympathies, with or without the endorsement of Labor.

In any case, by ideological I mean to make a more substantial theoretical claim. Competency measures are ideological in the conventional Mannheimian (1965) sense of providing a set of ideas, concepts, and interpretive practices that frame the debate from a particular perspective. In this case, the perspective is of those seeking to improve economic performance and attract international investment through labour force development. This is a pro-business 'perspective' whether adopted out of commitment or as a concession to the business community. The association of competency measures with 'efficiency', 'effectiveness' and 'relevance to industry', at the heart of the campaign for competency-based reforms everywhere, is an expression of this perspective.

But I also mean to use the word ideological here in a more contemporary, non-positivist sense, of constituting a 'technology of power' (Foucault 1981) or an 'ideological currency' (Smith 1990) through which a regime of governance takes place. This understanding of governing processes involves paying attention not only to how

ideas and understanding are organised, but also to how the practical activity of individuals in a variety of sites is coordinated and concerted to a particular end. In this view, competency-based curriculum measures provide a conceptual framework, a vocabulary and set of institutional practices through which local educational activities are subordinated to the dominant political discourse of our time (Smith 1990).

This ideological character of competency measures can be seen in the ordinary everyday working relations among employers, bureaucrats, administrators, curriculum developers and instructors in the education and training sector. As I will try to show below, the competency framework provides a method of planning, coordinating and managing education or training activities such that they can be said to be 'responsive to the needs of industry.' This involves a fundamental transformation in the interests and methods of knowing that drive decision making, shifting authority to those who are farthest from the classroom (Wise 1979). Here I will try to outline briefly what this looks like in the areas of curriculum design and program administration.

Transforming Design and Administration

Implementation of competency measures in an education or training institution most often begins with the use of a task analysis or functional analysis process to establish a current definition of 'needs' or 'requirements' against which curriculum will be written or revised. This process provides a highly structured framework through which employers (or sometimes job incumbents) provide detailed knowledge of job requirements which is then translated into specific performance objectives for learners, for example, 'the ability to write a business memo'. The products of this process are called a 'skills profile', and once these are developed, classroom materials and assessment tools must be developed or revised to conform to the goals specified there.

Adequacy of instruction can no longer be justified, for example, in relation to the traditional educational concepts like grammar or punctuation, or in terms of broad developmental goals such as 'understanding the business environment'. Thus it forces a shift in the reference point for the work of instructors from their disciplinary base as educators (for example, mathematics, English, business) to the workplace as the context in which the appropriateness and adequacy of instruction can be gauged. It means teachers no longer determine the nature of instruction, but are required instead to serve in a 'support function', facilitating institutional goals and objectives set by others.

This reordering of instructional relations results in considerable loss of autonomy for teachers, and has been widely criticised for this effect (Walker and Barton 1987; Connell 1985; Apple 1982). But it is also important to notice that it accomplishes a broader shift in the domain of 'needs' and interests to which educational practice is responsive. Traditional concepts of educational achievement and skill development are subordinated to more functional objectives of job performance. Long term public policy commitments to investment in 'human capital' are subordinated to 'flexible' programs

that address short term definitions of need. In this process, instructional goals come to be governed by the logic of corporate balance sheets and decisions about learning become the 'province of corporate, non-educational interests' (Moore 1987, 236).

In addition to transforming the curriculum design process, CBE/T creates a new organisation of relations around the work of administrators and managers. This largely depends upon the use of documents to provide an abstract and objectified form of knowledge, emptied of many particulars of time, place and subject, as the basis for administrative action (Smith 1984). With a comprehensive documentary information system in place, administrators gain vast new powers to make decisions that can nevertheless be seen as 'objective' and organisationally warranted, and managers can demonstrate to policy makers that the institution is performing according to its mandate.

The administrative power of CBE/T begins with the development of the skills profile described above, which is said to provide a 'totally objective statement of needs' against which all aspects of course and program content can be judged. The skills profiles, along with the detailed documents specifying course and program content to match, provide the basis for ongoing program monitoring and evaluation. They supply the means for managers and administrators to make and justify decisions, even difficult and unpopular ones, by reference to the requirements of industry. Thus even basic curriculum decisions are rendered accountable, both within and beyond the institution, through a set of routine reporting arrangements. This organisation of accountability is meant to fix what administrators call variously 'curriculum creep' or 'provider capture', by which they mean too much decision making power in the wrong hands. It is for this reason that competency methods have come to be seen as the standard of 'good management practice' in institutions of education and training.

It is important to notice that in such a textually-mediated (Smith 1990, 1984) universe of action, the 'actuality' for organisational purposes (that is what administrators can 'see' and 'know' through the use of documents) comes to be one step removed from the ground of experience and action of individuals. What counts is not what individuals do per se, but what individuals can be shown to have done, and what can be made 'real' for managerial or political purposes. This disjuncture creates a kind of 'virtual reality' (Smith 1990) which is central to the ideological character of competency methods, and critical to understanding whose interests they serve.

If, for example, there is a dispute, even a law suit, challenging the adequacy of instruction in a given area, the documents of a CBE/T system are said to have the institution 'covered' because they can demonstrate what was taught in class on a given day. They allow administrators or lawyers to track back through the record and say, yes, a given item was taught and tested on a given day, to a given standard. In this situation we begin to see an important transformation at the heart of competency methods. That is, the achievement of competency-based curriculum may not be about lasting improvement in individual performance at all, but about making teaching and testing accountable to a standard through a warrantable set of procedures. Technically, it is not the competence of

the individual student which is assured by these methods, but the competence of instruction and the liability of the institution. The shift is central to the power and sophistication of the competency paradigm as a tool of governance and an ideological force.

Competence as a Social Relation

The mechanisms described here deserve a much more detailed treatment to explore their full power and impact. But already at this sketchy level of analysis we can begin to see that the form of 'competence' which is achieved as a product of current policies may not primarily be a measure of individual achievement, in school or on the job. Rather, the concept of competence comes instead to name a particular manner of administering and managing the delivery of instruction, in which 'relevance' to the needs of industry is made accountable in organisational terms.

What is imposed is strictly a **method** of making decisions and making them reportable. But adherence to these methods and procedures organises the relevance of action and decision making of individuals at every level of the process. Thus, even decentralised, local decisions are articulated, through a bureaucratic and political framework of accountability, to the interests of those who are neither teachers nor learners, but rather sit in the offices of government and industry, where the goal is to secure a 'better return on educational investment' (Gamson 1979).

Of course, it would be naive and completely inaccurate to argue that competency measures achieve a smooth, top-down imposition of corporate interests on educational practice. Quite the contrary; there is ample evidence that the outcomes of competency-based systems of governance are complex and contradictory in this regard. For example, the notion that employer input leads to a 'totally objective statement' of workplace requirements is becoming visible as an elaborately staged myth. In the real event, employers ideas are highly mediated by the work of curriculum specialists using tools such as task or functional analysis. There is a considerable tug-of-war on these occasions between what gets called the employers' 'wish lists' and what the tools of analysis will recognise as 'needs' (Jackson 1988; Field 1992).

Furthermore, different sizes and types of firms have very different work processes and thus differently organised skill requirements. Thus in both Britain and Australia there are many concerns within the business community about the generalisability of skills profiles, and agreed industry wide standards have been hard to achieve. These kinds of problems, combined with fears about costs and bureaucratisation, mean that business commitment to the approach continues to be weak or partial (see Field 1992; Business Council of Australia 1992; Della-Giacoma 1992).

Now at this point, we might well ask if the capacity of CBE/T to deliver gains to business is more apparent than real, then who stands to gain? The answer is startlingly clear, if not simple. Firstly, political partisans stand to gain by making careers of such popular, if facile, solutions. In this vein governments, whether pro-labour or pro-business, are pushing CBE/T precisely because it provides them the means to present

the appearance of serving the needs of industry at a time when their political survival depends on doing so.

But beyond this game of smoke and mirrors, a more diffuse set of established interests is served bybolstering our collective belief in the capacity of the current forms of 'state' to govern. CBE/T is being offered across the industrialised world, particularly its English-speaking part, as a placebo for a coherent economic and industrial strategy. In the short term it works because, as an ideological force and a technology of power, CBE/T 'normalises' or lends the appearance of common sense to the current strategies of industrial and social restructuring. But in the long term we will discover that it also amounts to a 'fire sale' of institutions which are critical to our socio/cultural, as well as economic, re-generation.

Conclusion

This approach to understanding the competency 'bandwagon' is particularly helpful in placing it in the context of the broader agenda of public policy of which it is a part. The logic of reform which is expressed in CBE/T is not isolated or idiosyncratic. On the contrary, it is part of an increasingly uniform management discourse being applied across national boundaries to fields of public social provision including education, health, and welfare, as part of their articulation to market forces (see Bates 1992; Codd and Gordon 1991).

Similar reforms are being introduced by governments of all political stripes faced with the spectre of 'global competition'. Broadly, all of these reforms can be seen as a process of ideological capture, replacing the public purposes and social vision of education and other social institutions with the logic, and the social relations of, private wealth creation (Horne 1992). The result is a profound and fundamental shift in where and how, and in whose interests, these institutions are controlled and managed (Walker and Barton 1987; Wallace 1992; Bates 1992). As individuals, we find ourselves caught inside a discourse which is not our own, the unwilling and often unwitting practitioners of a new social order in which we have a lot to lose.

Furthermore, the competency paradigm is not limited in its application to institutions of education/training design and delivery. Its impact is also being felt in the way the education and training infrastructure regenerates itself. That is, principles of competency are coming to set the standards of practice and the terms of professionalism for teachers, trainers and adult educators of various kinds, through use in programs of pre-service certification and in-service professional development in colleges and universities. Practitioners who do not conform to the competency orthodoxy are seen as 'unprofessional', out of date, and in need of training. In this light, the full hegemonic impact of the competency framework comes into view, leaving little room for critical discussion or debate (Stevenson 1992) about its merits. Thus the discourse of competency increasingly defines not only our current practice but also the parameters of our imagination on issues of education and training.

I am often asked by educators who have been dazzled by the commonsense character of the competency rhetoric, whether there is really any alternative. Don't we want people to be good at what they do? Am I really willing to settle for incompetence? The problem with the question is that it creates a false and seductive dichotomy. The opposite of competency-based curriculum management is not incompetence in individual performance. In fact, men and women have always shown a range of achievement, from excellent to shoddy, in all areas of pursuit, including teaching. Competency-based curriculum is not going to change that. The opposite of a competency-based curriculum management system is a framework for goal setting and accountability that keeps its eye on the human and developmental aspects of teaching and learning. It would be part of a public policy framework concerned with social as well as economic enhancement through education and training. It would have as its inspiration a more humane world, not a more competitive and clever country.

References

Apple, M W (1982) *Education and Power*. Routledge and Kegan Paul, London.

Ashworth P and Saxton J (1990) On competence. *Journal of Further and Higher Education*, 14(2) 3-25.

Bates, R (1992) *Education and Reform: Its Role in the Economic Destruction of Society*. Keynote address, AARE/NZARE annual conference. Deakin University, Geelong.

Business Council of Australia (1992) *Entry Level Training System: An Enterprise-Based Stream*. Supplementary submission to the Employment and Skills Formation Council on Entry Level Training. Canberra.

Cantor, L M and Roberts, I F (1986) *Further Education Today: A Critical Review, Third Edition*. Routledge and Kegan, London.

Codd, J and Gordon L (1991) School charters: the contractualist state and education policy. *New Zealand Journal of Educational Studies*, 25(1) 21-34.

Collins, C (1991) The Finn Review: Where has it come from? Where is it taking us? *Unicorn*, Vol 18 No 1, February 1992, 44-48.

Collins, M (1987) *Competence in Adult Education*. University Press of America, Lanham, Maryland.

Connell, R W (1985) *Teachers' Work*. George Allen & Unwin, Sydney.

Della-Giacoma, J (1992) Business cool on vocational certificate. *Australian* 25 November 1992.

Fagan, E R (1984) Competence in educational practice: A rhetorical perspective. In E C Short (Ed.) *Competence — Inquiries into its Meaning and Acquisition in Educational Settings*. University Press of America, Lanham, Maryland.

Field, J (1992) The pedagogy of labour: where next? Paper presented to the VET Forum, University of Warwick, Coventry.

Foucault, M (1981) *Power/Knowledge: Selected Interviews and Other Writings*. (Ed.) C Gordon. Pantheon, New York.

Gamson, Z (1979) Understanding the difficulties of implementing a competence-based curriculum. in G Grant *et al* (Eds.) *On Competence*. Jossey-Bass Publishers, San Francisco.

Hall, G E and Jones, H L (1976) *Competency-Based Education: A Process for the Improvement of Education*. Prentice-Hall, Englewood Cliffs, New Jersey.

Horne, D (Ed.) (1992) *The Trouble with Economic Rationalism*. Scribe Publications. Newham, Victoria.

Hyland, T (1992) NVQ's and the reform of vocational education and training. *Journal of the National Association for Staff Development*, 26, 29-36.

Jackson, N (1988) Competence, curriculum and control. *Journal of Educational Thought*, 22(2a).

Jessup, G (1989) The emerging model of vocational education and training. In J Burke (Ed.) *Competency-Based Education and Training*. The Falmer Press, London.

Mannheim, K (1965) *Ideology and Utopia*. Doubleday/Anchor, New York.

Mansfield, B (1989) Competence and standards. In J Burke (Ed.) *Competency-Based Education and Training*. The Falmer Press, London.

Mayer Committee (1992) *Employment-Related Key Competencies: A Proposal for Consultation*. Owen King Printers, Melbourne.

Moore, R (1987) Education and the ideology of production. *British Journal of Sociology of Education*, 8(2) 227-42.

Pennington, D (1992) The University Perspective. Address to national conference, What do we mean by tertiary education? Melbourne.

Short, E C (Ed.) (1984) *Competence: Inquiries into its Meaning and Acquisition in Educational Settings*. University of America Press, Lanham.

Smith, D E (1984) Textually mediated social organization. *International Social Science Journal*, 36(1) 59-75.

Smith, D E (1990) *The Conceptual Practices of Power*. University of Toronto Press, Toronto.

Spady, W G (1980) The concept and implications of competency-based education. In R Jaeger and C Tittle (Eds.) *Minimum Competency Achievement Testing*. McCutchen Publishing Corporation, Berkeley.

Stevenson, J (1992) Policies and practices in vocational education and training in Australia. In *What Future for Vocational Education and Training?* Conference papers, vol. 1, National Centre for Vocational Education Research, Ltd, Melbourne.

Walker S and Barton L (Eds) (1987) *Changing Policies, Changing Teachers*. Open University Press, Milton Keynes.

Wallace G (1992) *Local Management of Schools: Research and Experience*. Multilingual Matters, Clevedon.

Wise, A E (1979) *Legislated Learning: The Bureaucratization of the American Classroom*. University of California Press, Berkeley.

Wolf, A (1989) Can competence and knowledge mix? In J Burke (Ed.) *Competency-Based Education and Training*. The Falmer Press, London.

Is There a Need to Redress the Balance Between Systems Goals and Lifeworld-Oriented Goals in Public Education in Australia?

Victor Soucek

Introduction

Western societies are at present undergoing fundamental social and economic changes. This largely systemic transformation impacts directly on the lives of people. It affects their workplace, the provision of social services, income distribution, and the general aesthetics of their lives. At a higher level of abstraction, the changes in the economic/administrative system (1) correspond to the transition from Fordism to post-Fordism. The changes in the lifeworld (2), the world of personal experience, are reflected in the emergence of postmodernism. The changes in the economic system and the lifeworld are, nevertheless, two sides of the same coin. The changes we might witness today in one sphere of our local and global communities are more than likely to be affected by the same forces which produce other changes in different spheres of society.

My immediate concern in this paper is with the issue of what constitutes educational competence. However, as I have suggested above, like many other things the competency issue can no longer be seen as having a rationale of its own. This is especially true because the major argument behind the current emphasis on competency-based education claims that educational standards are directly linked with national economic performance. In a Habermasian sense (Habermas 1989), this linking between the economic/administrative system and the lifeworlds of private citizens signifies a further colonisation, or 'takeover' of the latter by the former.

Is Competency-Based Education Leading the Transition to the Regime of Flexible Accumulation?

The End of the Post-WWII Boom

The issue of competency-based education and training has emerged against the background of a major economic crisis of modern capitalism (Wallerstein 1980, 1985;

Gordon 1980; Crough and Wheelwright 1982; Lipietz 1987). Various business cycle type *hiccups* have been sporadically occurring throughout the post-WWII economic development of industrially advanced countries. Such temporary set backs tended to be resolved through allocative measures taken by nation-state governments. The present crisis, however, proved to be somewhat more troublesome. This time the crisis meant not only a sharp fall in profits. What became increasingly clear was that the old Keynesian remedy of demand stimulation through government spending could no longer correct the fundamental imbalance between production capacity and consumer power. The post-WWII nexus between labour wage and capitalist production, which constituted the backbone of the Keynesian settlement, was broken. It was broken because the intensification of Fordist production failed to carry along corresponding increases in productivity (Jessop 1989, 265).

In Australia, the attempt to compensate for the sharp fall in the rates of profit during the Whitlam years, and later in 1978, was followed in 1983/4 by a radical redistribution of profits in favour of private capital (Pusey 1991, 258). This, in turn, dampened demand for goods and services. At about the same time, the federal government, attempting to resolve the crisis of economic stagnation and underutilisation of productive capacity, succumbed to the pressure of transnational capital and introduced far reaching changes into the regulatory framework of the circuit of capital. The deregulation of the financial industry, freeing up cash flows, and lowering protective tariffs was designed to increase efficiency and thus restore productivity. The subsequent policy of tying wage increases to increases in productivity aimed to restore the balance between consumer demand and production capacity. I have dealt with the reasons why this strategy failed elsewhere (Soucek 1993b). For my present purpose I would like to note that the restructuring of education provision, which includes the introduction of competency-based education and training, constitutes a significant part of the overall strategy to restore profitability to the Australian economic system.

The End of a Way of Life

There is now an increasing body of literature (Aglietta 1979; Lipietz 1987; Jessop 1989) which describes the period of the Keynesian settlement as the age of Fordism. This regime was based on a monopolistic regulation of mass production whereby the workers were fully integrated into the capitalist system as both producers and consumers. It was recognised that wages constituted not only a cost but also an outlet for expanding capitalist production. The term Fordism, therefore, refers not only to the mode of production, but to a 'particular institutionalised way of life' (Elam 1990: 30). In this the state played a crucial mediating and regulatory role. The collapse of Fordism can thus be seen as the end of a particular way of life: it signifies not only the end of the Fordist mode of production, but also the end of the Keynesian hegemonic project.

It is far too early to predict what sort of regime will replace Fordism. Whatever it will be, it will need to integrate different moments in the circuit of capital, including

the relationship between production potential and consumption. I have argued that under Fordism the state mediated the tension between wage labour and capital. It was through the state that wage labour was able to secure substantial gains in the area of the social wage. However, in the 1980s these gains began to roll back. Evidence from the United Kingdom indicates that social entitlements in the UK were drastically cut from 46.5 per cent of GDP in 1984 to 40.5 per cent in 1988 (3). In Australia cuts to public spending were introduced in 1988, when overall public expenditure dropped by over 1 per cent as a percentage of GDP to 37.1 per cent. With the exception of the USA and Japan, Australia's public expenditure is already the lowest of the OECD countries. The statistical evidence above would seem to suggest that the Australian state is withdrawing still further from its role of mediating the tensions between labour and capital. In the sphere of the economic system, it is through its policies of deregulation in the financial field and, (in some States) industrial relations, that this withdrawal from a mediating role is becoming evident. However, the state is increasing its intervention on behalf of the system in the lifeworld of its citizens through the management of public education.

In many ways the Keynesian hegemonic project was indebted to the ideals of the Enlightenment period. In that sense it was squarely set in the era of modernity. Among other things, the issues of social justice, equity, equality of opportunity and emancipation were its major catchcries. Public education was understood to fulfil the twin role of preparing young people for a life of work and for a life in society. The former was concerned with imparting system-maintenance skills such as cognitive and linguistic competency and technical knowledge, and aimed at the system integration of the individual. The latter was concerned with developing the lifeworld skills and competencies such as social skills, cultural understanding, moral maturity, and practical and emancipatory knowledge (Habermas 1979); its aim was the social integration of the individual. The combination of the system and lifeworld education was understood to issue not only in a capacity to enter the system (to become employable) but also in self-actualisation and the intellectual autonomy of the student. Pedagogical efforts thus aimed at liberating individual potential and empowering the student to act cognitively, socially, and morally in an autonomous fashion but within the existing framework of social and moral norms. I would like to argue that the present debate about competency-based education and training needs to consider and account for this seeming division into the systemic and lifeworld aspects of education.

Furthermore, fostering intellectual autonomy is crucial if the economic and administrative system is to undergo any future incremental modifications with respect to the issues of social justice and equity (4), and the social and moral maturity of our increasingly global community. At issue is our collective capacity to step back from our individual locations in the economic/administrative system and, from this vantage point, which Marcuse (1978) describes as aesthetic distance, review and reconsider the role that the existing social structures might be playing in maintaining the *status quo* of

unequal distribution of wealth and in inhibiting specific members of social groups from achieving their individual potentials. In this process, public education must play its part since it is still, even today, the sole mechanism for remedying these existing social inequalities by offering an opportunity for upward mobility.

Essential to my thesis is the claim that regimes of accumulation, with their economic strategies, are dynamically related (5) to hegemonic projects (Jessop 1983; Soucek 1992a). The educational goals and pedagogic practices under the Keynesian settlement were a logical extension of the imperatives manifest at the economic and administrative system level. The issues of social justice and equity helped to legitimate to a large extent the economic growth and distribution under Fordism. With the collapse of the Fordist system of production the question must arise whether the end of Fordism signifies also the end of the Keynesian collective effort to act in the interest of these broader social issues. Any change in the area of social policy would clearly become evident in the amount of money spent on the public provision of services as a proportion of the GDP and in the pattern of wealth distribution. Both the statistical evidence and the analysis of policy documents (6) indicates that such a shift had indeed taken place in the 1980s. I have already noted the sharp shift in the distribution of national income away from wage earners to profits, and the cuts to public spending. A similar shift has occurred in the public sector outlays on education. In 1983 the total government expenditure on education was 5.73 per cent of the GDP. In 1988 this fell to 5.09 per cent (7). Overall government expenditure fell between 1985 and 1988 by 2.26 per cent of the GDP. There is, thus, evidence which indicates that the Keynesian educational settlement is being re-worked.

The System and the Lifeworld

One further point needs to be made at this stage. My intention is not to argue that hegemonic projects (and, by extension, the provision of public education) are determined by economic conditions alone. The notion of economic determinism (for example, the relationship between the system's needs and public policy) is a theoretical construct oblivious to human agency's vital role in mediating the tensions necessarily arising in our contemporary society. It is generally recognised (8) that, in our modern capitalist society, human beings do have at least some measure of self-determination in opposition to the economic/administrative system determination.

There is, of course, considerable evidence of a correspondence between accumulation regimes and hegemonic projects, or between system imperatives and their impact on the lifeworlds of private citizens. Furthermore, as Gramsci (1987, 105-6) pointed out, at times of conjunctural crises (such as the present one) the state *tends* to assume a hegemonic role on behalf of capital in order to reorganise the social relations of production, social reproduction, and distribution, with a proviso that the material conditions for such a reorganisation must already exist or at least be emergent. It cannot, however, be overemphasised that any apparent correspondence between economic

strategy (for example, deregulation of cash-flows forced on the Australian state by the necessity to pre-empt a flight of the transnational investment capital as happened in the latter part of the Whitlam years) and the social structures of accumulation (for example, restructuring educational systems, re-professionalising the teaching profession, or reworking the school curriculum) is only a tendential phenomenon (9), not an evidence of structural determination. Public policy and the forms of social organisation are contestable now as they were at the time of Gramsci's writing.

What is new today is our collective perception of the nature of such contestation. I would argue that the fundamental conflict is no longer seen as being between the proletariat and capital, but rather between the economic/administrative system and the lifeworlds of private citizens.

In the arena of public education this conflict issues as an attempt by the corporate sector to promote system-maintenance skills. The 1960s and early 1970s, in Australia, was a period when lifeworld skills were given a receptive ear by policy makers. By contrast, the present policy debate appears to be about how much school time and effort should be given to system-maintenance skills formation, on the one hand, and to the pedagogical pursuits of students' self-actualisation and intellectual autonomy, on the other.

The strategy of the system-maintenance advocates (for example, OECD 1989; Mayer Report 1992a/b; Carmichael Report 1992a/b; or the Finn Report 1992) is to reduce the tensions between the system-maintenance requirements and the lifeworld by denying the presence of any conflict. The traditional division between vocational and general education has collapsed into a paradigm of flexible skills formation or competency-based education/training. The evidence (10), however, suggests that work-relevant educational competencies tend to over-emphasise the system-maintenance skills at the expense of the lifeworld skills.

The claim that education separates into general and vocational aspects is clearly a problematic one. Many commentators (OECD 1989; Hager 1992) argue that such separation constitutes a false dichotomy. My own view is that in one sense this is, indeed, a false dichotomy, but in another it is not. I have dealt with this topic elsewhere (11). For my present purpose let it suffice to say that except for specific mechanical skills (for example, welding) most vocational skills are underpinned by some of the basic skills which are taught in general education. These skills may be categorised as linguistic, cognitive, interpersonal, and social/moral competencies. Thus, for example, the ability to perceive an interruption in the production process and communicate clearly the information to the appropriate authority or department, without antagonising the other workers, or without vesting the information with some undisclosed personal goal, are skills informed by general education skills, not by specific work-related skills. My contention, however, is that not all general education skills are directly applicable to an industrial workplace. Such skills relate to the capacity for independent, original, and critical thinking. They extend *beyond* the technical problem

solving skills required in a typical industrial environment. An exclusive focus in school curriculum on work-relevant skills' would clearly result in a gross neglect of vital lifeworld-relevant skills.

I have argued that at present our society is undergoing a fundamental transition from Fordism to post-Fordism. I have further claimed that the present educational changes signify a break with the Keynesian hegemonic project and with the associated educational settlement. To the extent that these changes might promote the new flexible accumulation strategy, I would suggest that the new educational settlement can be understood as a flexible education settlement (cf. Mathews 1988).

Because this paper is primarily concerned with the educational competencies aspect of the new educational settlement, in Part 2, I shall examine the proposed curricular changes outlined in the Carmichael, Mayer, and Finn Reports. I will, firstly, identify conceptual problems inherent in the proposed competencies approach. I will further argue that this approach, which clearly is motivated by economic imperatives, is likely to produce some socially negative consequences through its emphasis on work-relevant and demonstrable competencies. These negative consequences include, firstly, a loss of collective capacity to evaluate social practices in socially meaningful terms; and, secondly, a further subsumption of the lifeworld of individual citizens by the economic/administrative system. Figure 1 outlines the relationships between the concepts crucial to my argument.

Figure 1

Conceptual framework of the traditional model of public education

Societal tier	*Educational orientation*	*Type of integration*	*Knowledge area*	*Learning domain*	*Pedagogical method*
Lifeworld	General	Social	Practical Emancipatory	Cognitive Normative Expressive Affective	Performative
System	Vocational	System maintenance	Technical	Cognitive	Formal

Decolonising the Lifeworld

In Part 1, I argued that throughout the past decade or so the world economy has gone through a transition from a Fordist mode of production to what many commentators describe as either a post-Fordist mode or as a 'flexible specialisation mode of production' (Mathews 1988).

Following Habermas (1989), I have argued that the period of modern capitalist development can be characterised as increasing colonisation of the lifeworld by the

system. I have claimed that the transition from Fordism to the post-Fordist regime of accumulation is underpinned by a yet further acceleration of this process.

In Part 2, I will examine briefly the relationship between these system-maintenance imperatives and the role of competency-based education provision. I will argue that the separation of the society into the system and lifeworld tiers is a false separation. Following McCarthy (1985) and Misgeld (1985), I will argue that at the theoretical level of analysis the systemic aspect of society can become available in the lifeworld. I will further claim that closely related to the false separation of the system and the lifeworld is the general vs. vocational education dichotomy. To develop my argument, I will, firstly, identify the theoretical difficulties inherent in the competency-based approach. Secondly, I will discuss the crucial area of knowledge — what can be known and for what purpose. Finally, I will juxtapose the system-maintenance pedagogy with pedagogy which approaches the systemic aspect of society through lifeworld-derived competencies.

Conceptual Problems Inherent in the Competency-Based Approach

There are some real difficulties inherent in the approach adopted by the Mayer Report. They can be broadly arranged under the following themes:

1. What constitutes knowledge
2. The relationship between performance and deeper knowledge/understanding
3. Who selects the skills to be tested and how standards are determined
4. The problems inherent in a modularised curriculum.

1. *Performance is not a pathway to knowledge.* The competency-based approach claims that knowledge is evidenced in a performed skill. It asserts that knowledge is constituted in what people need to know in order to perform or demonstrate a certain skill. This approach shifts the focus from theory to practice. The question, however, arises: does a learned performance constitute a competent performance if it is not underpinned, at the same time, by theoretical understanding?

As Norris (1991) argues, in professional practice the competency approach is flawed on three counts. Firstly, competency cannot be defined in advance because it is always situationally specific. As a consequence, a learned performance might not guarantee a competent performance in altered circumstances. Secondly, because the assessment of a competent performance is at least partially dependent on the assessor's subjectivity, it assumes that the personal values and knowledge of the assessor and the tested person are identical or at least similar. Thirdly, 'what is needed are standards of criticism and principles of professional judgement that can inform [competent] action in the context of uncertainty and change' (p.337). In my view, the competency-testing approach simply cannot anticipate all possible permutations of occupational situations. Its focus on performance rather than on knowledge is unlikely to equip the future practitioner with the capacity to deal effectively with unforeseen, situationally specific, problems.

Clearly, the shift from the assessment of knowledge to the assessment of performance has resolved neither the problem of inference, nor the problem of guaranteeing the transferability of competence between situationally specific settings.

2. *Performance does not guarantee a presence of knowledge.* Within the context of competency-based testing, the relationship between a performed skill and the deeper understanding supposedly underpinning it is a rather tenuous one. Yet the present policy proposals (12) tend to favour a development of *routine tasks* and *mechanical abilities* rather than enhanced understanding. This might considerably jeopardise the development of the latter. The Finn Report favours the approach based on discrete competence/skill modules rather than on knowledge and understanding per se (Finn, 1991: 57). The Carmichael Report also proposes that educational outcomes must be demonstrable. What is common to these documents is that they appear to assume that understanding and knowledge somehow develop through the skill-learning and skill-testing situations. Yet this conflation of skills-testing and knowledge and understanding might not be justified. The danger lies in the assumption that a *limited number of specifically defined skills might demonstrate the presence of knowledge and understanding* that supposedly underpin those skills.

Following Messick (1984), Norris (1991) and others argue that *competence* is about a *potential*, whereas *performance* is about actually carrying out a task. This distinction would seem quite unproblematic. Clearly competence is different from performance. Even if we accept Flavell and Wohlwill's (1969) argument that competence is a cognitive structure imbedded in an activity, there still remains a problem of furnishing some sort of internal mechanism for allowing these cognitive structures to be usefully employed under different conditions or circumstances.

Wood and Power (1987) also argue that competence and performance are not the same. They define competence as resting on:

> . . . an integrated deep structure (understanding) and on the general ability to co-ordinate appropriate internal cognitive, affective and other resources necessary for successful application (p 414).

A successful approach to training, therefore, needs to take account of this higher level of skills coordination. It needs to be about knowledge and understanding, not just about demonstrable performance.

There is a flaw in the logic of competency-based curriculum. This flaw resides in the assumption that: if 'deeper knowledge and understanding (p)' tend to produce, in a given situation, an 'appropriate performance (q)' that, conversely, an 'evidence of such performance (q)' might lead to the development of 'deeper knowledge and understanding (p)' underpinning such behaviour.

3. *Who should determine what is to be learned?* The other difficulty that arises in the competency-based approach relates to who actually determines what is to be learned. As Ashenden points out, 'the outcomes defined are not the familiars of education talk

— 'understanding', 'awareness', 'grasp' and so on, but the capacity to do something' (Ashenden 1991, 18). But more importantly, he goes on, this capacity is derived directly from a particular job, workplace or industry. In other words, it is increasingly the employers, not educationalists, who determine what is to be learned in the classroom. The point made here is that, even though generic, employment-related skills need to be underpinned by deeper knowledge structures acquired through general education, this knowledge does not necessarily need to be very complex. For example, the ability to 'interview a person and fill out a structured form on his or her behalf' (Mayer 1992a) might be a useful skill, but a skill, nevertheless, quite routine and certainly not underpinned by any complex knowledge (13). Therefore, to the extent that generic skills testing might define the future curriculum, the students' learning environment might be deprived correspondingly of the richness and complexity of intellectual challenges of that aspect of the curriculum which is deemed irrelevant to the formation of generic work-related skills.

4. *Modular versus continuous curriculum.* Yet another problem with competency-based skilling is related to the tendency to fragment and isolate clusters of skills, without providing useful structures for the students to make connections between these discrete skills. There are, of course, some obvious advantages in having small modules of skills or units of knowledge. They might provide more flexibility to students, who are able to exercise more individual choice in how they mix the different components of a course. But there are also clear disadvantages. The continuity of development of ideas might completely break down. Consequently, even after a prolonged period of study, students might fail to penetrate deeply into any area of skill or understanding. They might acquire a number of skills, but these might allow them merely to skip over the surface of what informs those skills. This is an obvious risk of any modular curriculum.

Perhaps the most appropriate criticism of modularised curriculum comes from teachers themselves. Their reaction to unitisation of curriculum in Western Australia, for example, is well documented (14). Within the context of the present discussion, some of their major criticisms were directed at the lack of continuity of curricula. This was noted in all core subjects. The general perception of teachers was that students indeed 'keep skipping over the surface of what normally underpins general knowledge and understanding'. Furthermore, the 10-week modules made the traditional mentor or pastoral role of teachers impossible to fulfil, to the extent that many teachers did not in fact know their students' names.

Knowledge: Knowing What and the Reason for Knowing

The competency-based education argument, in its focus on the formation of system-maintenance skills, clearly acknowledges that society is comprised of two separate areas: the system and the lifeworld. In this it follows the traditional division of educational functions into vocational and general. What is new, however, is that the

competency-based (or system-maintenance) curriculum tends to be presented as having also the function of general (or lifeworld) education. I suggest that this is a theoretically flawed approach, because it tends to:

1. reduce all educational concerns to the discreet area of technical knowledge; and
2. encourage a subsumption of lifeworld interests under the systemic interests.

1. Three areas of knowledge.

The competency movement claims that the separation of the theoretical and work-relevant aspects of education constitutes a false dichotomy. In support of this claim, I would argue that general education and vocational education are jointly constituted of both the work-relevant and the theoretical aspects of knowledge. However, following Habermas (1979) I would assert that it would be more useful and appropriate to categorise knowledge as technical, practical, and emancipatory types of knowledge.

Technical knowledge is concerned with doing things — for example, fixing up a bike, or building a nuclear reactor. Its chief preoccupation is to look for causal explanations within the realm of the physical world (for example, physical science or engineering). Its role is instrumental. It can be used as a means for achieving a social goal. However, it cannot become a social action in its own right, because social implications of its application always transcend its own territory (15).

Practical knowledge (16), on the other hand, is concerned with understanding the social world. Examples of practical knowledge might include traditional forms of teaching, or those social sciences which aim to explain or legitimate the existing social order.

Emancipatory knowledge is interested in the power relations embodied in the existing social structures and in the aspirations of men and women to achieve their potentialities; that is, it aims to identify the structural and personal phenomena that inhibit self-realisation. Examples of emancipatory knowledge can be found in critical sciences such as critical pedagogy, critical sociology, psychoanalysis, and in liberation theology. Significantly, all three types of knowledge can be developed only through a dialogical interplay between theory and practice.

There is no hierarchical ordering among these types of knowledge. Yet together they form a unified whole whereby each area is required to interact with the other two. In complex social situations an absence of one area of knowledge might render the understanding of social situations incomplete. For example, a decision to build a dam in order to produce hydro-electricity invites not only an expertise of technical problem solving, but also a social inquiry into the fates of the local population whose social and cultural existence might be radically disrupted and who need to be consulted about their own future.

Further, within the context of emancipatory knowledge, questions also need to be raised about in whose interest the project is being developed and who is going to benefit by it. The point is, should one of the knowledge areas be ignored, the decision made would be, in principle, incompetent — that is, the dam might collapse, the alternative

habitat for those dislocated might not be available and the community might thus perish, or the dam could have been simply built in order to generate profits for the construction company and betray the interests of society as a whole.

My argument is that social and economic phenomena overlap and are mutually interdependent, but nevertheless the distinction between the two does not constitute a 'blurring' (OECD 1989) and the one cannot become the other. The lifeworld extends well beyond the economic/administrative system. Those who advocate that the lifeworld is identical with the economic system are clearly guilty of economic determinism, an attitude which in the final analysis would seem to deny humans the capacity for self-determination. Whilst care must be taken to avoid a false dichotomy between the technical and the practical/emancipatory, these two aspects of knowledge must not be conflated both because the former could be presumed to have the attributes of the latter and because the latter could be significantly devalued.

2. Knowledge, intellectual autonomy, and social integration.

The implicit goal of education is to help the learner achieve intellectual autonomy. By *intellectual autonomy* I mean a capacity to participate in forming validity judgements in actual social situations of unequal power and authority (Young 1990). This concept clearly surpasses concerns with formal problem solving and a technical aspect of performance, which, I would argue, constitute the essence of competency-based education.

The concept of intellectual autonomy encompasses four distinct (yet strongly interdependent) competencies: linguistic, cognitive, intersubjective, and egological (or ego-developmental). Each area of competence is concerned with a related validity claim. Respectively, these are: comprehensibility, truth, appropriateness, and truthfulness (Habermas 1979). Let me illustrate the complex relationship between these competencies.

Linguistic competence extends beyond a grammatically correct way of using language. It also acknowledges illocutionary force. Illocutionary force refers to the power relationship between the speaker and the listener. Different degrees of illocutionary force can be identified, for example, in the following sentences: 'I order you to. . .!' and 'I would like you to. . .' Linguistic competence is thus underpinned by *intersubjective competence*, which consists in recognising and respecting the role of the other. Intersubjective competence is concerned with fairness and equality of discourse and social action.

Linguistic competence is further underpinned by *cognitive competence*, which extends beyond the narrow cognitivist and monological concerns of 'What do I know?' and 'Is it 'correct'?' In the area of the social world, it is also concerned with raising validity claims about the impact technical knowledge and social action might have on the lifeworlds of people. In the emancipatory sense, it raises validity claims about the impact of existing power arrangements on individual aspirations to intellectual autonomy and well-being. It requires a dialogical form of inquiry (17).

Finally, linguistic competence is also determined by *egological competence*. This refers to the psychological maturity of the learner. An egologically competent person can distinguish between self-interest and collective interest, and can balance the two in the course of all social interaction. In a discourse situation, the person's action is oriented towards understanding, not towards achieving a self-interested purpose. Such a person is able to challenge their own validity claims. Each of the other competencies (cognitive, intersubjective, or egological) is similarly influenced by the other three.

All four competencies are, therefore, necessary for a student to become an autonomous learner and an autonomously functioning member of a complex society such as Australian society. For the learner, the success in mastering these competencies determines systemic and social integration. It is thus possible for the learner who has achieved competency in one or two of these areas to become systemically but not socially integrated, and vice versa (18). Figure 2 outlines the conceptual framework of social integration.

Figure 2

Social integration

Structural components	*culture*	*society*	*personality*
Reproduction processes	cultural reproduction	social integration	socialisation
Aspects of communicative action	understanding	coordination	sociation
Speech acts	propositional	illocutionary	expressive
Key Competencies	linguistic/cognitive	intersubjective	egological

Schools clearly have a great deal to contribute to the process of social integration. In relation to the system and the lifeworld, the type of social integration espoused by educational policy might aim at one of the following:

- reproducing the status quo
- improving the general conditions with respect to the emancipatory interests of the lifeworld
- altering the social structures of accumulation (for example, education provision) according to accumulation strategy (that is, system imperatives).

The important point is that social integration must aim at dissolving dissonance between the system and the lifeworld. A fascist administration, for example, cannot coexist with emancipatory curriculum, because an administrative dictatorship and an intellectually autonomous population would stand in contradiction to each other. Any shift in the economic/administrative system, therefore, needs to be accompanied by a corresponding shift in the processes of social integration.

I would further argue that the currently emerging economic/administrative system shows signs of progressive de-democratisation of the political processes. This is necessary in order that the control of resources and concomitant increasing concentration of wealth in fewer hands (Eaton and Stilwell 1992) might not be politically challenged.

In this respect, the notion of intellectual autonomy is out of harmony with the developing system. The role of education is therefore being redefined. The capacity to interpret the economic, cultural, and societal phenomena is being subsumed under solely systemic concerns. My own analysis of the proposed competency-based education system (19) indicates that the education system is being realigned with the emergent economic or systemic imperatives; that is, the social structures of accumulation are altered in order to fit in with the accumulation strategy. I would argue that the strategy for achieving this perlocutionary purpose consists not in denying the existence and relevance of lifeworld-related competencies, but in defining them in terms of a reduced intellectual autonomy (20). At the same time lifeworld competencies are increasingly defined in systemic terms (21). Hence the colonisation of the lifeworld.

What we thus see in the competency-inspired restructure of school curriculum is a concerted effort to present systemic integration in terms of lifeworld skills, and to imbue social integration with system-maintenance skills. The lifeworld loses on both accounts.

Pedagogical Implications for Decolonising the Lifeworld

The Competency Movement and the Colonisation of the Lifeworld

By collapsing lifeworld and system-maintenance skills into a single category of work-relevant skills, the competency movement denies society its capacity to reflect critically on both the systemic structures and the way in which they impact on the lifeworlds of people. I would suggest that an overt emphasis on system-maintenance skills is likely to produce the following consequences:

- the emancipatory project of modernity is likely to be abandoned
- the economic/administrative system's colonisation of the lifeworld is likely to progress even further.

Firstly, the emphasis on technical knowledge and the cognitive learning domain promotes the development of system-maintenance skills. The practical and emancipatory areas of knowledge are ignored, and the normative, expressive, and affective learning domains are significantly undervalued, as is also the notion of intellectual autonomy. In other words, the critical competencies necessary for identifying structural impediments to social progress are rendered dysfunctional.

Secondly, by defining lifeworld skills in system-maintenance terms, the autonomy of individual lifeworlds is denied and replaced by system-relevant performance criteria. In a Habermasian sense, this signifies a further colonisation of the lifeworld by the system.

The conceptual framework promoted by the competency movement is depicted in Figure 3. It shows that the competency movement does not include the lifeworld-relevant educational concerns in its educational scheme. A conceptual framework for a public education designed to bring the lifeworld back into society is shown in Figure 4.

Figure 3

The conceptual framework of the competency-based education.

Society	*Educational orientation*	*Type of integration*	*Knowledge area*	*Learning domain*	*Pedagogical method*
Economic/ Admin. System	Work-relevant	System maintenance	Technical	Cognitive	Formal

Figure 4

Conceptual framework for public education designed to bring the lifeworld back into a society.

Societal tier	*Educational orientation*	*Type of integration*	*Knowledge area*	*Learning domain*	*Pedagogical method*
Society	Lifeworld	Social	Technical Practical Emancipatory	Cognitive Normative Expressive Affective	Formal & Performative

Formal versus Performative Competency

One of the major difficulties with the competency movement resides not in its promotion of the work-relevant competencies but rather in its partiality in leaving out the whole range of lifeworld-relevant skills. But the difficulty with competencies extends beyond its selective bias towards work-relevant skills. In particular, it extends to the pedagogical method of formal instruction.

Young (1990) makes an important distinction between *formal* and *performative* pedagogies in relation to the teaching of competencies. There are two key differences between these approaches, and they correspond closely to their respective orientation towards system-maintenance skills and social or lifeworld skills. They concern, firstly, the social and moral dimension of the character-forming aspect of the learning experience, and, secondly, the pedagogical method involved in the teaching/learning process.

Young (1990) further argues that children's argumentative capacity can be developed only in a specific sequence. The key issue is the relationship between the level at

which the child can currently solve social/moral problems and the curricular *problem level* with which the child is asked to interact. In other words, the problem solving task must be pitched at a carefully ascertained level slightly above the child's existing ability to solve these problems and below the limit beyond which the child's present capacity cannot extend. Because only the student can ultimately *fine tune* the actual problem level, the structuring of learning experiences requires a great deal of cooperation between the teacher and the learner. The student's participation is needed, however, not only to determine the appropriate problem levels, but also in order to solicit the student's commitment to the task. Learners must see themselves to be at least in partial control of the learning experience if they are to be changed by it in some way.

This takes me back to the point made earlier. Success in solving a moral or social problem in an autonomous fashion has an *empowering* and *character forming* effect on the learner. It empowers them in the sense of becoming *less dependent on the authority's provision of moral guidance*. It further *provides epistemological grounding for a challenge to authoritative norms*. Finally, it has a character forming effect in the sense that the *implicit moral dimension of the resolved problem is internalised and the student's character is thus extended or even altered*.

The other point made earlier concerns different pedagogical methods which underpin the learners' experience in our schools. This difference becomes clearest when we juxtapose the performative and formal approaches. In the former, the student participates in setting the problem levels, whereas in the latter, a problem task is typically given to the student.The former allows the child to explore their own cognitive and moral potential in order to help set the moral problem in a social context. This step is crucial because it enables the development of a sense of ownership over the problem. As a consequence, the child is more likely to treat it as genuine engagement rather than as a mere school exercise to which a correct answer already exists. By exploring various alternatives, the child becomes aware of possible social consequences of alternative solutions to the problem, and their sense of fairness is reinforced.

The competency-based approach, on the other hand, appears to be flawed for three reasons. Firstly, it does not provide an opportunity for an emotional investment in the learning task. In addition, the student perceives the task as belonging to someone else — the moral dimension implicit in the resolution of the problem is, therefore, unlikely to be internalised by the student. Finally, the student might perceive it not as a real challenge to their own capacity to autonomously and creatively resolve the dilemma. Instead, they might see it as an exercise in guessing what the teacher thinks is the 'right' answer. The important point that needs to be made is that effective learning of this type cannot be executed in a coercive, non-participatory and pre-determined fashion (Miller 1986).

Conclusion

I have argued in this paper that the current restructuring of our education system reveals the tendency for the economic/administrative system to subsume the lifeworlds of

private citizens. I have implied that this is not a socially desirable phenomenon. In the final analysis, this is a socially self-destructive tendency which even today shows up, for example, in the growing ghettos of inner cities of the USA, UK, and Australia. I would hope that most people share my concerns in this regard. Clearly something needs to be done urgently.

Few people would agree as to what should be done. There is nothing wrong about disagreeing. Yet I do see a problem when disagreements are chiefly motivated by self-interest and greed alone. This indicates an immanent social immaturity and a lack of sophistication in the public policy discourse in our present society. It is also the major impediment to social progress. A discourse underpinned by such motives cannot hope to achieve any meaningful consensus. Thus, typically, the so-called consensus tends to be gained by silencing or marginalising the dissident voices (Triado 1984).

To create reasonable conditions for a social dialogue, whereby a genuine consensus might be achieved (to ground the discourse in the lifeworld rather than in the nexus between the system and the lifeworld, and the associated power games) is a major challenge to our present society. I would like to suggest that our schools are well placed to help bring about such changes. Our collective responsibility as educationalists is to assist them in this task by providing a constructive and reflective critique of the emerging educational settlement. These changes will not happen overnight. They will take time. Yet even today we might begin by a complete overhaul of those educational policies which propose a further privileging of systemic interests vis-a-vis lifeworld interests — the lifeworld must find its way back into the curriculum.

Notes

1. The methodological dualism advanced by Habermas (1989) in *The Theory of Communicative Action, Volume Two* is based on the assumption that at some stage in the development of modern capitalism the system was uncoupled from the lifeworld and became, in an analytical sense, inaccessible to the subjective methodology of the lifeworld. To deal with the objective dimension of the system, Habermas appropriated Parson's systems theory. My own view is that Habermas is mistaken in taking this step to the extent that the major thrust of his critical analysis is weakened. In this paper, I use the distinction between the system and the lifeworld purely for a diagnostic purpose. For further reading on Habermas and the systems theory see Misgeld (1985) and McCarthy (1985).
2. By *lifeworld* I mean a 'context-forming horizon of social action' (McCarthy 1984, xxv). This horizon is made up of personal experiences known implicitly rather than explicitly. This implicit knowledge enters social action only through the process of rationalisation. Its structural components are: culture, society, and personality. The lifeworld is thus different from the social world. The latter may be conceptualised as a totality of all legitimately regulated interpersonal relations.
3. *Government Finance Statistics* Yearbook, 1990, p. 112.
4. There is no doubt about the extreme disparity in the distribution of wealth in Australia. For example, in 1989 the top 100 individuals owned over 21 billion dollars worth of assets. The total Federal revenue in that year was 88 billion dollars. For the further widening of the gap between the rich and the rest of the Australian society see Eaton and Stilwell (1992).

5. A useful way of conceptualising the relationship between accumulation strategy and hegemonic project is to see it as structural isomorphism — the social structures of accumulation (for example, education) are produced by the same forces which produce the specific material conditions for capital accumulation (the dominance of financial capital, the need for smaller and more flexible firms to complement the production of large transnational corporations, or the relationship between labour replacing technology, implementation of the structural efficiency principle, and the rise in unemployment).
6. *In Making Sense of 'Better Schools'* (1992), I have identified a radical departure in the Australian Federal education policy from a student-centred education to an economic system centred education. This rupture had become first evident in the Williams Report (1979). See also Freeland (1986).
7. *Government Finance Statistics Yearbook*, 1990, p. 114.
8. See, for example, the notion of structuration in Giddens (Held and Thompson 1989), or discourse ethics in Habermas (1984, 1989, 1990).
9. By saying this I am not denying the link between the enormous power transnational capital wields over nation-States' domestic economic policies (Kennedy 1988). My point is that these policies are not determined in a strictly deterministic sense; they can, and indeed often do, take different shapes.
10. See, for example, Soucek (1992b), and Soucek (1993a).
11. See Soucek (1993a).
12. See, for example, OECD (1989).
13. This statement refers to a formal application of a structured 'competent' performance as recommended by the Mayer Report (1992a/b). In practice, of course, there is not a single structured way of doing it well. To do this task competently may require a very deep understanding, indeed; for example, an understanding of a situation the client comes from, their emotional state, or how best to get the information out of the person. The point made earlier is that, to do this task well, one needs to take into account the specific situation which will change with each new client. The appropriate conduct cannot be anticipated in advance. This competence, therefore, must be informed by knowledge and understanding flexibly applied in a given situation. In my interpretation, however, the key competencies outlined in the Mayer Report are not concerned with the learner's deeper understanding of their performance.
14. For further discussion of this topic see Soucek (1992c); Robertson and Soucek (March, 1991); and Ministerial Taskforce Report (1990).
15. The major flaw of economic rationalism consists precisely in that it assumes that technical knowledge can become a social action in its own right (cf. Pusey 1991).
16. Practical knowledge is about interpreting the social world. It serves to extend understanding and the capacity to communicate about social phenomena. It is reflective and insightful, but remains confined to the limits of dominant social and cultural values. It fails to take account of the fact that its own interpretation is caused or has its origin precisely in these dominant values. It is reluctant to recognise the role objective socio-economic structures might play in influencing the social action. It fails to make the connection between 'objective' and 'subjective'.
17. Two points need to be made here. Firstly, dialogical inquiry usually can take place within accepted norms of classroom interaction. However, when instances of cognitive dissonance or normative disagreement arise, it may be necessary to provide space for the learner to challenge the assumptions and procedures underlying the typical classroom interaction (Young 1990; Miller 1986). Secondly, dialogical approach does involve strategic limitations imposed on the learning experience. However, these limitations are withdrawn in accordance with the learner's progress towards intellectual autonomy.
18. In *The Sane Society*, Fromm argues that when a society itself is in some way psychologically deformed, a successful social integration requires that the individual's personality be similarly deformed. Within the context of the present discussion, I would suggest that a social integration

based entirely on system-maintenance competencies might similarly indicate certain shortfalls in the psychological health of our own society.

19. See Soucek (1993a).
20. The Mayer Report (1992b) makes some important improvements in the area of lifeworld skills. There are, however, two points I would like to make. Firstly, 'developing ideas' and 'becoming critical', competencies emphasised by the Mayer Report, are skills necessarily underpinned by a deeper knowledge that cannot be acquired through performance alone. Secondly, developing autonomous ideas and a critical attitude are outcomes of dialogical learning. The competency approach disregards both the concern for deeper understanding and the role of dialogical pedagogy. It cannot, therefore, lay any claim to fostering intellectual autonomy.
21. For example, intersubjective competence is confined to the workplace, and presented as a purposeful activity oriented towards a systemic goal.
22. These include a capacity for a critical consideration of the issues of social justice, equity, and equal opportunity, but also for a critical reappraisal of the existing social and moral norms, and in general of the values underpinning the existing power arrangements.
23. Even though the competency-based education is based on performance, or on 'doing things' rather than learning about doing them, the learner carries out their performance against pre-given, formal criteria. Performative pedagogy, on the other hand, aims to involve the learner in negotiating the criteria and conditions of their learning experience. There is, thus, a radical difference between performance-based training and performative pedagogy.
24. The point is that the widespread destitution in the developing countries and even in significant parts of the industrially developed countries exists not because the global productive capacity could not satisfy these needs, but because this would not be profitable to those who control this productive capacity (Marcuse 1973).

References

Aglietta, M (1979) *A Theory of Capitalist Regulation: the US Experience*. NLB, London.

Angus, M (1990) Making better schools: devolution the second time around. Paper presented at the American Research Association annual meeting in Boston, Massachusetts, April.

Ashenden, D (1990) Award restructuring and education. *Queensland Teachers Union Professional Association*, 8(1) 8-14.

Ashenden, D and Associates (1991) *Progress and Prospects in Improved Skills Recognition*. Ashenden Report. NBEET Commissioned Report No. 10. AGPS, Canberra.

Australian Education Council Review Committee (1991) *Young People's Participation in Post-compulsory Education & Training*. (Finn Report). AGPS, Canberra.

Carmichael Report. Employment and Skills Formation Council Report commissioned by NBEET (March 1992) *The Australian Vocational Certificate Training System*. AGPS, Canberra.

Carmichael Council. Employment and Skills Formation Council Report commissioned by NBEET (July 1992) *The Australian Vocational Certificate Training System*. AGPS, Canberra.

Crough, G and Wheelwright, T (1982) *Australia: A Client State*. Penguin, Ringwood, Victoria.

Eaton, M and Stilwell, F (1992) The super rich in Australia. *Journal of Australian Political Economy*, (30) 141-47.

Elam, M J (1990) Puzzling out the post-Fordist debate: technology, markets and institutions. *Economic and Industrial Democracy*, 11, 9-37.

Fischer, F and Mandell, A (1988) Relegitimating meritocracy: Educational policy as technocratic strategy. *Telos*, 76, 50-64.

Flavell, J and Wohlwill, J (1969) Formal and functional aspects of cognitive development. In D Elkind and J Flavell (Eds) *Studies in Cognitive Development*. Oxford University Press, Oxford.

Freeland, J (1986) Australia: The search for a new educational settlement. In R Sharp (Ed) *Capitalist Crisis and Schooling in Comparative Studies in the Politics of Education*. Macmillan, Hong Kong.

Giddens, A (1989) A reply to my critics. In D Held and J B Thompson (Eds) *Social Theory of Modern Societies*. Cambridge University Press, Cambridge.

Giroux, H A (1989) *Critical Pedagogy, the State, and Cultural Struggle*. State University of New York Press, Albany.

Gordon, D (1980) Stages of accumulation and long economic cycles. In T Hopkins and I.Wallerstein (Eds) *Processes in the World System*. Sage, Beverley Hills, California.

Gramsci, A (1987) *Selections from the Prison Notebooks*. International Publishers, New York.

Habermas, J (1979) *Communication and the Evolution of Society*. Heinemann, London.

Habermas, J (1984) *The Theory of Communicative Action, Volume One*. Beacon Press, Boston.

Habermas, J (1989) *The Theory of Communicative Action, Volume Two*. Beacon Press, Boston.

Habermas, J (1990) *Moral Consciousness and Communicative Action*. MIT Press, Massachusetts.

Hager, P (1992) Is there a cogent philosophical argument against competency standards? Paper presented at the Annual Conference of the Philosophy of Education Society of Australasia, Fremantle, September.

Harvey, D (1989) *The Condition of Postmodernity*. Basil Blackwell, Oxford.

Jessop, B (1983) Accumulation, state, and hegemonic projects. *Kapitalistate*, 10/11, 89-111.

Jessop, B (1989) Conservative regimes and the transition to post-Fordism: the cases of Great Britain and West Germany. In M Gottdiener and N Komninos (Eds) *Capitalist Development and Crisis Theory: Accumulation, Regulation and Spatial Restructuring*. MacMillan, London.

Kennedy, M (1988) The new global network of corporate power and the decline of national self-determination. *Contemporary Crises*, 12, 245-76.

McCarthy, T (1984) Translator's introduction. In J. Habermas, *The Theory of Communicative Action, Volume One*. Beacon Press, Boston.

McCarthy, T (1985) Complexity and democracy, or the seducements of Systems Theory. *New German Critique*, (35) 27-53.

Mayer Report (May 1992) *Employment-related Key Competencies: A Proposal for Consultation*. Owen King Printers, Melbourne.

Mayer Report (October, 1992) *Putting General Education to Work: The Key Competencies Report*. AEC, Melbourne.

Lipietz, A (1987) *Mirages and Miracles*. Verso, London.

Marcuse, H (1973) *Eros & Civilization*. Abacus, London.

Marcuse, H (1978) *Aesthetic Dimension*. Beacon Press, Boston.

Marshall, N (1988) Bureaucratic politics and the demise of the Commonwealth Tertiary Commission. *Australian Journal of Public Administration*, XLVII(1), 19-34.

Mathews, J *et al* (1988) Towards flexible skill formation and technological literacy: challenges facing the education system. *Economic and Industrial Democracy*, 9, 497-522.

Messick, S (1984) The psychology of educational measurement. *Journal of Educational Measurement*, 21, 215-38.

Misgeld, D (1985) Critical hermeneutics versus neoparsonianism? *New German Critique*, (35) 55-82.

Miller, M (1986) Learning how to contradict and still pursue a common end: The ontogenesis of moral argumentation. In J Cook-Gumperz, W Corsaro and J Streeck (Eds), *Children's World and Children's Language*. Mouton de Gruyter, Berlin.

Ministerial Taskforce Report (1990) *Good Teachers Make Good Schools*. Western Australian Ministry of Education, Perth.

Norris, N (1991) The trouble with competence. *Cambridge Journal of Education*, 21(3) 331-41.

Offe, C (1975) The theory of the capitalist state and the problem of policy formation. In L Lindberg et al (Eds), *Stress and Contradiction in Modern Capitalism*. D C Heath, Lexington.

Organisation for Economic Cooperation and Development (1989) *Education and the Economy in a Changing Society*. OECD, Paris.

Pusey, M (1991) *Economic Rationalism in Canberra*. Cambridge University Press, Melbourne.

Robertson, S L and Soucek, V (1991) Changing social realities in Australian Schools: a study of teachers' perceptions and experiences of current reforms. Paper presented at the CIES conference, Pittsburgh, Pennsylvania.

Soucek, V (1992a) *Making Sense of 'Better Schools': A Discourse Approach to Educational Policy Analysis*. Unpublished MEd Thesis. Curtin University, Perth, W.A.

Soucek, V (1992b) Contextualising the competency-based schooling. *The Australian Journal of Teacher Education*, 17(2).

Soucek, V (1992c) Fundamental conflict. *Education Links*, (42) 4-10.

Soucek, V (1993a) Flexible education and new standards of communicative competence. (Forthcoming)

Soucek, V (1993b) Post-Fordism: an attempt at making or unmaking capitalism? (Forthcoming)

Triado, J (1984) Corporatism, democracy and modernity. *Thesis Eleven*, 9, 35-51.

Wallerstein, I (1980) *The Capitalist World Economy*. Cambridge University Press, Cambridge.

Wallerstein, I (1985) *The Politics of the World Economy*. Cambridge University Press, Cambridge.

Whitty, G and Willmott, E (1991) Competence-based teacher education: approaches and issues. *Cambridge Journal of Education*, 21(3) 309-18.

Wood, R and Power, C (1987) Aspects of the competence-performance distinction: educational, psychological and measurement issues. *Journal of Curriculum Studies*, 19, 409-24.

Young, R E (1990) *A Critical Theory of Education: Habermas and our Children's Future*. Teachers' College Press, New York.

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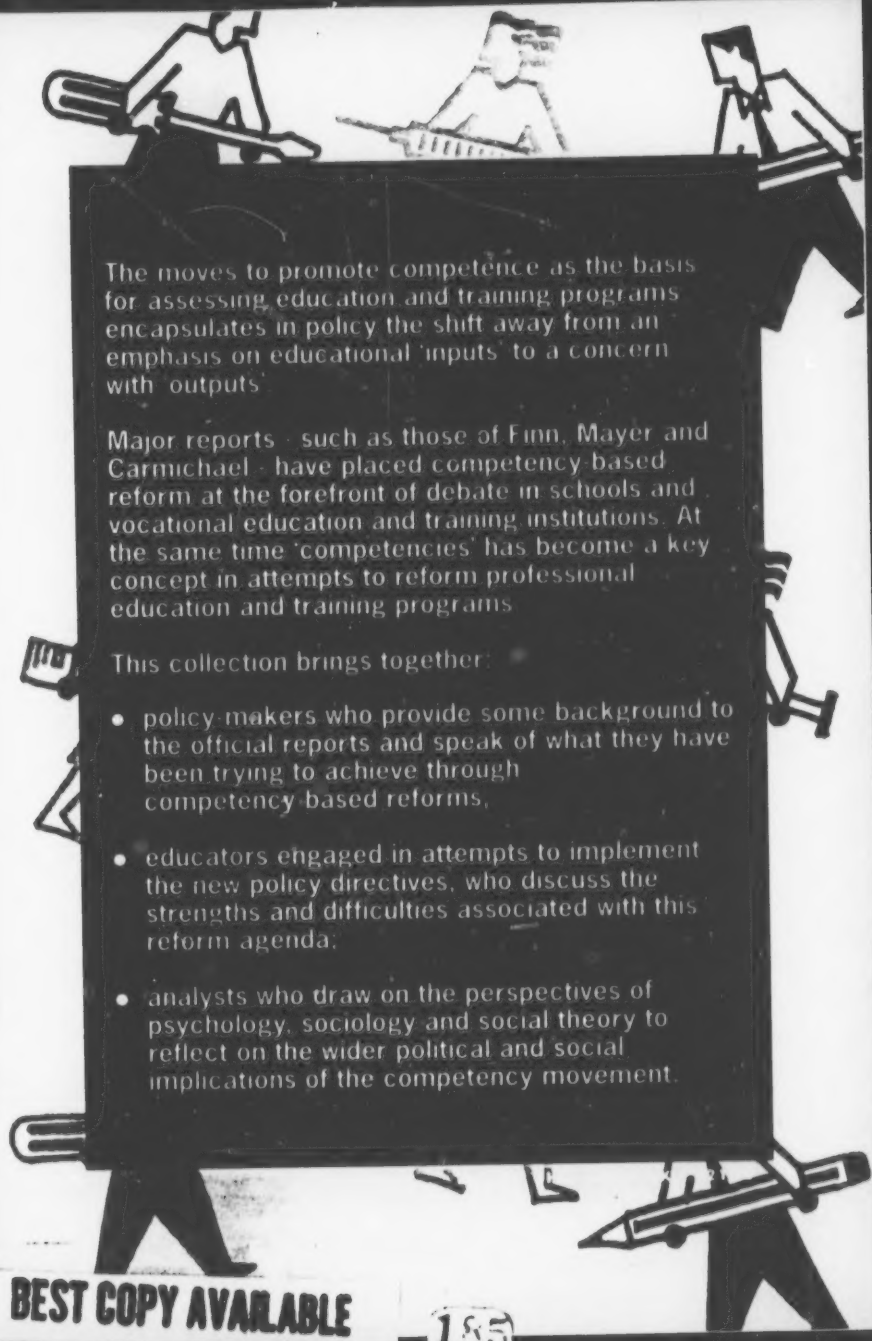

The moves to promote competence as the basis for assessing education and training programs encapsulates in policy the shift away from an emphasis on educational 'inputs' to a concern with 'outputs'.

Major reports - such as those of Finn, Mayer and Carmichael - have placed competency based reform at the forefront of debate in schools and vocational education and training institutions. At the same time 'competencies' has become a key concept in attempts to reform professional education and training programs.

This collection brings together:

- policy makers who provide some background to the official reports and speak of what they have been trying to achieve through competency based reforms,
- educators engaged in attempts to implement the new policy directives, who discuss the strengths and difficulties associated with this reform agenda;
- analysts who draw on the perspectives of psychology, sociology and social theory to reflect on the wider political and social implications of the competency movement.

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